On approval of the Fire Safety Rules

Unofficial translation

Resolution of the Government of the Republic of Kazakhstan dated October 9, 2014 No. 1077

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Unofficial translation

Footnote. It became invalid by the Decree of the Government of the Republic of Kazakhstan dated 16.03.2022 No. 131 (effective after ten calendar days after the date of its first official publication).

In accordance with subparagraph 15) of Article 11 of the Law of the Republic of Kazakhstan dated April 11, 2014 "On civil protection", the Government of the Republic of Kazakhstan **DECIDES**:

1. To approve the attached Fire Safety Rules.

2. To recognize as invalid:

1) the Decree of the Government of the Republic of Kazakhstan dated December 30, 2011 No. 1682 “On approval of the Fire Safety Rules” (CAPG of the Republic of Kazakhstan, 2012, No. 15, Art. 253);

2) paragraph 50 of the amendments that are made to some decisions of the Government of the Republic of Kazakhstan, approved by the Decree of the Government of the Republic of Kazakhstan dated July 23, 2013 No. 735 "On amendments to some decisions of the Government of the Republic of Kazakhstan" (CAPG of the Republic of Kazakhstan, 2013, No . 42, article 623.).

3. This decree enters into force ten calendar days after the day of its first official publication.

Prime-Minister of the Republic of Kazakhstan *K. Massimov*

Approved
by the decree of the Government
of the Republic of Kazakhstan
dated October 9, 2014 № 1077

The Fire Safety Rules

1. General provisions

Organizational and technical measures

General provisions

1. These Fire Safety Rules (hereinafter referred to as the Rules) are developed in accordance with subparagraph 15) of Article 11 of the Law of the Republic of Kazakhstan

dated April 11, 2014 “On Civil Protection” and determine the procedure for ensuring fire safety in order to protect people, property, society and the state from fires.

Footnote. Paragraph 1 as amended by the Decree of the Government of the Republic of Kazakhstan dated 29.12.2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

1-1. During the operation of facilities, compliance with the requirements of these Rules and other regulatory legal acts containing fire safety requirements for the operation of facilities approved in the prescribed manner is ensured.

Footnote. The Rules are supplemented by paragraph 1-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

1-2. Fire safety at the facility is provided by the owners of facilities, heads of organizations, enterprises, regardless of ownership, as well as individual entrepreneurs (hereinafter referred to as the head of the organization). In order to ensure fire safety, the heads of organizations in the prescribed manner appoint those responsible for ensuring fire safety in certain areas of work.

Footnote. The Rules are supplemented by paragraph 1-2 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

1-3. For each facility (with the exception of individual residential buildings), the head of the organization approves an instruction on fire safety measures that establishes a fire regime corresponding to their fire hazard, in accordance with Appendix 1-1 to these Rules.

Footnote. The Rules are supplemented by paragraph 1-3 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

1-4. The heads of organizations (including housing maintenance organizations) responsible for the operation of buildings and structures equipped with smoke removal systems, automatic fire detection and extinguishing installations, alarm and evacuation management systems in case of fire, keep these systems in good condition.

Footnote. The Rules are supplemented by paragraphs 1-4 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

1-5. The head of the organization ensures compliance with the project documentation and the constant presence in good working condition of fire extinguishing and fire alarm installations, warning systems and evacuation management in case of fire, smoke protection and fire water supply, anti-fire doors, valves and hatches, other fillings of openings in fire barriers, premises, buildings and structures, means of protection and rescue of people.

The operation of buildings and structures during the period of maintenance and scheduled preventive maintenance related to the shutdown of the installation (individual lines, signaling

devices), fire protection systems or means, without the implementation of additional measures to ensure fire safety is not allowed.

Footnote. The Rules are supplemented by paragraphs 1-5 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

1-6. The procedure for organizing non-state fire services at facilities is determined in accordance with the Rules for implementation of the activities of non-state fire services, approved by order of the Minister of Internal Affairs of the Republic of Kazakhstan dated November 7, 2014 No. 782 (registered in the register of state registration of regulatory legal acts under No. 9931).

Footnote. The Rules are supplemented by paragraphs 1-6 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2. Employees of organizations are allowed to work only after passing the briefing on fire safety, and if the specifics of work change, they undergo additional training on preventing and extinguishing possible fires. The procedure for training employees of organizations and the public in fire safety measures and the requirements for the content of training programs for training in fire safety measures are established by the authorized body in the field of civil protection.

2-1. In order to ensure the operability and reliable operation of fire automatics systems and installations, departmental (industry, facility) rules and instructions for technical maintenance of systems and installations of fire automatics are developed taking into account the specifics of objects and production processes.

Footnote. The Rules are supplemented by paragraph 2-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-2. From the moment the systems and installations of fire automatics are put into operation, maintenance and scheduled preventive maintenance are organized at each facility.

Footnote. The rules are supplemented by paragraph 2-2 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-3. Works on maintenance and scheduled preventive maintenance of technical means of fire protection systems are carried out by the operating organization independently in the presence of qualified specialists to perform these works.

In the absence of specially trained maintenance personnel, routine maintenance and scheduled preventive maintenance of technical means of fire protection systems are carried out under an agreement with organizations in accordance with the annual schedule drawn up taking into account the technical documentation of manufacturers, and the timing of routine maintenance.

Footnote. The rules are supplemented by paragraph 2-3 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-4. To ensure the efficient operation of the technical means of fire protection systems for buildings (automatic fire alarm and fire extinguishing installations, smoke protection systems, warning and evacuation management in case of fire and manual fire extinguishers), by order of the head of the organization, an official is appointed responsible for the operation of fire protection systems, acquisition, repair, safety and readiness for action of primary fire extinguishing means, timely and high-quality maintenance (recharging of manual fire extinguishers) and scheduled preventive maintenance.

Operation and maintenance of fire extinguishers are carried out in accordance with the requirements of ST RK 1487 “Fire-fighting equipment. Fire extinguishers. Operating requirements”.

Footnote. The Rules are supplemented by paragraph 2-4 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-5. For the qualified operation and maintenance of systems and installations of fire automatics in a technically sound condition at the facility, the following personnel are appointed by order of the head:

1) the person responsible for the operation of fire automatics systems and installations;

2) specialists to perform maintenance work and preventive maintenance of fire automatics systems and installations in the absence of a contract for the maintenance of fire automatics systems and installations. The training of specialists is carried out by the person responsible for the operation of fire automatics systems and installations, according to a program approved by the head of the facility.

Footnote. The Rules are supplemented by paragraph 2-5 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-6. In the premises of duty personnel, places where evacuation plans and instructions on fire safety measures are located, signs are posted indicating the telephone numbers of the fire service "101" and the unified duty and dispatch service "112".

Duty personnel are provided with a set of keys from all door locks of the building in accordance with the functions assigned to them.

A spare set of keys is stored in the premises of the staff on duty (security) on the first floor of the building.

Each key is provided with a tag with an inscription about its belonging to the corresponding lock.

The staff on duty is located in the premises in which a telephone is installed and a register of adults and children remaining in the building for the night is kept in any form.

Footnote. The Rules are supplemented by paragraphs 2-6 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-7. The person responsible for the operation of fire automatics systems and installations ensures:

1) fulfillment of the requirements of these Rules;

2) control and acceptance of work on maintenance and preventive maintenance in accordance with the schedule and schedule of work under the contract;

3) maintaining systems and installations of fire automatics in working condition by organizing timely maintenance and scheduled preventive maintenance;

4) training of maintenance and duty personnel, as well as instructing persons working in protected premises on actions when fire automatics systems and installations are triggered;

5) development of the necessary operational documentation and its maintenance;

6) timely filing of complaints to:

manufacturers - when supplying incomplete technical devices and equipment of systems and installations of fire automatics, or not corresponding to the technical documentation;

installation organizations - upon detection of poor-quality installation;

service organizations - for untimely and poor-quality maintenance and scheduled preventive maintenance of systems and installations of fire automatics.

Footnote. The Rules are supplemented by paragraphs 2-7 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-8. Accounting for maintenance and scheduled preventive maintenance of technical means of fire protection systems, checks for the availability and condition of primary fire extinguishing equipment is reflected in a special log or automated maintenance and scheduled maintenance management system.

Footnote. The Rules are supplemented by paragraphs 2-8 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-9. Maintenance and preventive maintenance of fire automatics systems and installations are carried out by qualified specialists of the facility or organizations that carry out this type of activity on a contractual basis (hereinafter referred to as the contractor). The existence of a contract for maintenance and scheduled preventive maintenance of fire automatics systems and installations with the organization does not relieve the facility manager of the responsibility for fulfilling the requirements of these Rules.

Footnote. The Rules are supplemented by paragraphs 2-9 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-10. Maintenance and scheduled preventive maintenance of fire automatics systems and installations include:

1) the conduct of planned preventive work;

2) troubleshooting and maintenance;

3) assistance by the contractor to the customer in matters of proper operation.

Footnote. The Rules are supplemented by paragraph 2-10 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-11. The frequency of maintenance, scheduled preventive maintenance and the scope of work are established in accordance with the requirements of the operational documentation for the technical means of the serviced systems, fire automatics installations and are indicated in the contract.

Footnote. The Rules are supplemented by paragraph 2-11 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-12. At the facilities for service personnel, "Instructions for operation of systems and installations of fire automatics" and "Instructions for duty (operational) personnel" are developed and approved by the head of the organization.

Footnote. The Rules are supplemented by paragraph 2-12 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-13. The maintenance personnel of the facility or the contractor perform routine maintenance within the established time limits and fill out the relevant operational documentation.

Footnote. The Rules are supplemented by paragraph 2-13 in accordance with the Decree of the Government of the Republic of Kazakhstan dated 13.12.2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-14. At a facility equipped with fire automatics systems and installations, the head of the organization ensures the availability of the following documentation:

1) design and estimate documentation for systems and installations of fire automatics;

2) executive documentation (a set of working drawings), acts of concealed work (if any), tests and measurements;

3) an act of acceptance into operation of systems and installations of fire automatics in the form in accordance with Appendix 1-2 to these Rules;

4) passports for technical means that are part of systems and installations of fire automatics;

5) a list of installed devices and equipment of systems and installations of fire automatics in the form in accordance with Appendix 1-3 to these Rules;

6) passports for filling the cylinders of gas fire extinguishing installations (if any) with fire extinguishing compositions;

7) instructions for the operation of systems and installations of fire automatics;

8) regulations for maintenance work;

9) schedule of maintenance and the planned preventive maintenance;

10) operational log of systems and installations of fire automatics in the form in accordance with Appendix 1-4 to these Rules;

11) work schedule of operational (duty) personnel, approved by the head of the organization;

12) job descriptions of the duty and maintenance personnel, the person responsible for the conduct of maintenance and scheduled preventive repairs, a copy of the contract with the organization for carrying out maintenance and scheduled preventive repairs (at facilities serviced by organizations);

13) a log of the training of the personnel of the facility for the evacuation of people using warning systems and evacuation management (if any) in any form.

Footnote. The rules are supplemented by paragraph 2-14 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-15. Systems and installations of fire automatics are constantly kept in the standby (design) mode of operation.

Footnote. The rules are supplemented by paragraph 2-15 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-16. During the period of maintenance and scheduled preventive maintenance, the implementation of which is associated with the inhibit of fire automatics systems and installations, the facility administration ensures fire safety of the objects protected by fire automatics systems and installations by compensatory measures.

Footnote. The rules are supplemented by paragraph 2-16 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-17. After the expiration of the service life specified in the documentation for the technical device that is part of the systems and installations of fire automatics, as well as in the event of a failure of the systems and installations of fire automatics, a technical examination of these systems and installations is carried out in order to determine the possibility of their further use for their intended purpose.

Footnote. The rules are supplemented by paragraph 2-17 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-18. Technical examination of systems and installations of fire automatics is carried out by a commission with the obligatory participation of representatives of the customer, contractor, if necessary, specialists from other organizations.

Footnote. The rules are supplemented by paragraph 2-18 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-19. The results of the survey are documented in the act of survey of systems and installations of fire automatics in the form in accordance with Appendix 1-5 to these Rules.

Footnote. The rules are supplemented by paragraph 2-19 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-20. In buildings and structures (except for residential buildings), in the event of a simultaneous presence on any floor of 10 people or more, plans for evacuation of people are developed and hung out on each floor of the building, at the evacuation exits from the floor at a distance of no more than 20 m along the length of the corridor in the case of a fire, containing the procedure for the actions of employees of the organization to carry out the safe evacuation of people, call the fire service and organize fire extinguishing before the arrival of fire departments.

Footnote. The rules are supplemented by paragraph 2-20 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-21. In buildings for people to live, as well as buildings (structures) with a mass stay of people, in case of a power outage in case of fire, the staff on duty is provided with electric lights in working condition. The number of lanterns is determined by the head of the organization, based on the characteristics of the object, but not less than 1 lantern for each person on duty.

Footnote. The rules are supplemented by paragraph 2-21 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-22. The instructions on fire safety measures developed for buildings with round-the-clock stay of people (boarding schools, homes for the elderly and disabled, orphanages, hospitals) contain options for self-evacuation of people, as well as the evacuation of people who are not capable of self-evacuation by the organization's personnel for daylight and darkness.

Footnote. The rules are supplemented by paragraph 2-22 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-23. Heads of boarding schools, homes for the elderly and disabled, orphanages and hospitals:

1) on a daily basis, at the time set by the fire service, report to the fire department, in the exit area of which the object is located, information on the number of people located at each object;

2) provide training of personnel on their actions in case of fire at least once every six months with a simultaneous check of the operability of all elements of the fire protection system of the building.

Footnote. The rules are supplemented by paragraph 2-23 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-24. Changing the functional purpose, carrying out major repairs, technical re-equipment , reconstruction and redevelopment of buildings and structures without design and estimate documentation developed and approved in the prescribed manner are not allowed.

Footnote. The rules are supplemented by paragraph 2-24 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-25. When renting buildings and premises, tenants comply with the requirements of these Rules for this type of buildings, unless otherwise stipulated in the lease agreement.

Footnote. The rules are supplemented by paragraph 2-25 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-26. For all production and storage facilities, as well as outdoor technological installations, categories of explosion and fire hazard, as well as zone classes are determined in accordance with the requirements of the Rules for the Installation of Electrical Installations, approved by order of the Minister of Energy of the Republic of Kazakhstan dated March 20, 2015 No. 230 (registered in the register of state registration normative legal acts No. 10851) (hereinafter - order No. 230), which are indicated by the corresponding signs on the doors of the premises.

Safety signs are installed near equipment that has an increased fire hazard.

The use in production processes of substances and materials with unexplored indicators of their explosion and fire hazard, as well as their storage together with other substances and materials are not allowed.

Footnote. The rules are supplemented by paragraph 2-26 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-27. Buildings and structures at all stages of their life cycle are provided with communication means to call the fire service, serviceable primary fire extinguishing equipment. The norms for providing facilities with primary fire extinguishing equipment are given in Appendix 1-6 to these Rules.

Locations of primary fire extinguishing equipment, communication equipment, as well as fire automation systems are indicated by appropriate fire safety signs if the visual perception of these funds is difficult.

Footnote. The rules are supplemented by paragraph 2-27 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-28. Door locks are in good working order.

It is not allowed to install any devices that prevent the free closing of fire doors and smoke devices (curtains, screens, curtains).

Footnote. The rules are supplemented by paragraph 2-28 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-29. It is not allowed to carry out work on equipment, installations and machines with malfunctions that can lead to a fire, as well as with disconnected instrumentation and technological automation that ensure control of the set temperature, pressure and other parameters regulated by safety conditions.

Footnote. The rules are supplemented by paragraph 2-29 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-30. To ensure the required fire resistance and reduce the fire hazard of structures and their finishes, the use of fire retardants is allowed.

In buildings of all degrees of fire resistance (with the exception of the V degree of fire resistance), the rafters and the lathing of attic coverings made of combustible materials should be subjected to fire retardant treatment.

Carrying out work on the application of flame retardants (impregnation) is carried out in accordance with the requirements of the technical documentation for the fire protection agent.

Footnote. The rules are supplemented by paragraph 2-30 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-31. The head of the organization ensures the elimination of damage to fire-retardant sprayed compositions, fire-retardant coatings, plasters, cladding with plate, sheet and other fire-retardant materials of building structures, combustible finishing and heat-insulating materials, air ducts, metal supports of equipment and overpasses, and also checks the state of fire-retardant treatment (impregnation) in in accordance with the manufacturer’s instructions.

The state of fire-retardant treatment (impregnation) is checked within the time specified in the technical documentation, or at least once a year with the preparation of a test report.

Footnote. The rules are supplemented by paragraph 2-31 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-32. At the intersection of fire barriers with various engineering and technological communications (including electrical wires and cables), the resulting holes and gaps are sealed with non-combustible materials that provide the required fire resistance and smoke and gas tightness.

Footnote. The rules are supplemented by paragraph 2-32 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-33. In buildings and structures of organizations (with the exception of individual residential buildings) it is not allowed:

1) to store and use flammable and combustible liquids, gunpowder, explosives, pyrotechnic products, flammable gas cylinders, goods in aerosol packaging, celluloid and other explosive and flammable substances and materials in basements and basements, except for cases provided for by design standards;

2) use attics, technical floors, ventilation chambers and other technical premises for organizing production sites, workshops, as well as storing products, equipment, furniture and other items;

3) place and operate storerooms, kiosks, stalls and other similar premises in elevator lobbies, as well as store combustible materials;

4) remove the doors of evacuation exits provided by the project from floor corridors, halls , foyers, vestibules and stairwells, and other doors that prevent the spread of dangerous fire factors along evacuation routes;

5) to make changes in space-planning decisions, as a result of which the conditions for the safe evacuation of people worsen, access to fire extinguishers, fire hydrants and other fire safety equipment is limited, or the coverage area of automatic fire protection systems (automatic fire alarm, stationary automatic fire extinguishing installation, smoke removal system) is reduced, warning and evacuation control systems);

6) clutter doors, hatches on balconies and loggias, transitions to adjacent sections and exits to evacuation stairs with furniture, equipment and other items, dismantle interbalcony stairs, as well as weld hatches on balconies and loggias of apartments;

7) to clean the premises and wash clothes using flammable and combustible liquids, as well as to thaw frozen pipes with blowtorches and other methods using open fire;

8) leave uncleaned oily cleaning material;

9) install bars on the windows of all floors of the building and pits near the basement windows (with the exception of the premises of correctional and special institutions that provide temporary isolation from society, warehouses, cash desks, weapons rooms, secret parts of institutions, storage and circulation of precursors);

10) glaze balconies, loggias and galleries leading to smoke-free staircases;

11) arrange storerooms (utility rooms) in staircases and corridors, as well as store things, furniture and other combustible materials under flights of stairs and on landings. Under the

flights of stairs on the first and basement floors, it is allowed to arrange only rooms for central heating control units, water metering units and switchboards, fenced off with non-combustible partitions.

12) to arrange mezzanines, partitions, change houses, storerooms, desks and other built-in premises made of combustible materials in the production and storage premises of buildings (except for buildings of the fifth degree of fire resistance);

13) block up and close the passages to the places of installation of personal protective equipment and fastening of rescue devices.

Footnote. The rules are supplemented by paragraph 2-33 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-34. External fire escapes and railings on the roofs of buildings and structures are kept in good condition and are subjected to operational tests at least once every five years in accordance with the requirements of SR RK 2218-2012 “Building metal structures. Stairs fire external stationary and protections of a roof. General technical conditions".

Footnote. The rules are supplemented by paragraph 2-34 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-35. In premises intended for the simultaneous stay of more than 50 people, as well as in the premises of the basement and basement floors, intended for the simultaneous stay of more than 15 people, at least two emergency exits shall be provided.

In buildings and structures of IV and V degrees of fire resistance, simultaneous stay of 50 people or more is allowed only in the premises of the first floor.

Footnote. The rules are supplemented by paragraph 2-35 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-36. Doors and hatches of attic spaces, as well as technical floors and basements, in which, according to the technology, a permanent stay of people is not required, are locked. On the doors and hatches of these rooms, information about the location of the keys is posted.

The pits at the window openings of the basement and basement floors of buildings, structures and structures are promptly cleared of debris and other items. The locks on the windows open from the inside without a key.

Footnote. The rules are supplemented by paragraph 2-36 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-37. Used cleaning materials are collected in a non-combustible material container with a lockable lid. At the end of the work shift, the contents of these containers are removed outside the buildings.

Footnote. The rules are supplemented by paragraph 2-37 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-38. Special clothing for persons working with oils, varnishes, paints and other flammable and combustible liquids is stored suspended in metal cabinets installed in places specially designated for this purpose.

Footnote. The rules are supplemented by paragraph 2-38 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-39. In buildings with stained-glass windows more than 1 floor high, violation of the structures of smoke-tight non-combustible diaphragms installed in stained-glass windows at the level of each floor is not allowed.

Footnote. The rules are supplemented by paragraph 2-39 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-40. When operating evacuation routes and exits, compliance with design decisions and requirements of regulatory documents on standardization, documents in the field of architecture, urban planning and construction (including lighting, number, size and space-planning solutions of evacuation routes and exits, as well as the presence of evacuation fire safety signs).

Footnote. The rules are supplemented by paragraph 2-40 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-41. Opening of doors on escape routes is carried out in the direction of exit from the building, with the exception of doors for which the direction of opening is not standardized, namely:

1) premises of classes F1.3 and F1.4;

2) premises with a simultaneous stay of no more than 15 people, except for premises A and B;

3) pantries with an area of not more than 200 m 2 ;

4) sanitary facilities;

5) exits to the platforms of stairs of the 3rd type.

Footnote. The rules are supplemented by paragraph 2-41 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-42. Locks on the doors of emergency exits provide the possibility of their free opening from the inside without a key, except for cases established by the legislation of the Republic of Kazakhstan.

Footnote. The rules are supplemented by paragraph 2-42 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-43. Three-dimensional light fire safety signs “Exit”, “Escape (emergency) exit”, “ Escape door” with self-powered power supply and from the mains, used on evacuation routes, are kept in good condition with the light indication turned on.

Evacuation lighting is provided by automatic switching on when the power supply to the working lighting is interrupted.

Footnote. The rules are supplemented by paragraph 2-43 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-44. During the operation of evacuation routes and exits, it is not allowed:

1) block up evacuation routes and exits (including passages, corridors, vestibules, galleries, elevator lobbies, landings, flights of stairs, doors, evacuation hatches) with various materials, products, equipment, industrial waste, garbage and other items, as well as clog the doors of emergency exits;

2) arrange in vestibules of exits (with the exception of apartments and individual residential buildings) dryers and hangers for clothes, wardrobes, as well as store (including temporarily) inventory and materials;

3) to arrange thresholds on escape routes (with the exception of thresholds in doorways), sliding and lifting-lowering doors and gates without the possibility of manually opening them from the inside and blocking them in the open state, revolving doors and turnstiles, as well as other devices that impede the free evacuation of people, in the absence of other (duplicate) escape routes or technical solutions that allow you to manually open and block these devices in the open state. In addition to the manual method, it is allowed to use an automatic or remote method of opening and blocking devices.

4) use combustible materials that do not correspond to the fire hazard class for finishing, cladding and painting floors, walls and ceilings on evacuation routes, with the exception of buildings of the fifth degree of fire resistance;

5) fix self-closing doors of stairwells, corridors, halls and vestibules in the open position, as well as remove them;

6) to glaze or close the blinds of air zones in smoke-free stairwells;

7) replace reinforced glass with conventional glass in glazing of doors and transoms.

Footnote. The rules are supplemented by paragraph 2-44 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-45. When arranging technological, exhibition and other equipment, the premises are provided with evacuation passages to stairwells and other escape routes in accordance with design standards.

Footnote. The rules are supplemented by paragraph 2-45 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-46. Carpets, rugs and other floor coverings in rooms with a mass stay of people are securely fastened to the floor.

Footnote. The rules are supplemented by paragraph 2-46 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-47. Placement and operation of gas-cylinder installations, including those located inside buildings for people to live, are carried out in accordance with the safety requirements for gas supply system facilities approved by order of the Minister of Internal Affairs of the Republic of Kazakhstan dated October 9, 2017 No. 673 (registered in the register of state registration of regulatory legal acts No. 15986).

Footnote. The rules are supplemented by paragraph 2-47 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-48. When operating household gas appliances, furniture and other combustible materials are placed at a distance of at least 0.2 m horizontally to the nearest vertical surface and at least 0.7 m vertically to the nearest horizontal surface of these products hanging over it.

Footnote. The rules are supplemented by paragraph 2-48 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-49. Gas cylinders (working and spare) for supplying gas to household gas appliances (including cookers, hot water boilers, gas water heaters) are located outside buildings in annexes or cabinets made of non-combustible materials near a blank wall section at a distance of at least 5 m from building entrances, ground and basement floors.

Outbuildings and cabinets for gas cylinders are locked and provided with shutters for ventilation, as well as a warning sign “Flammable. Cylinders with gas.

Footnote. The rules are supplemented by paragraph 2-49 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-50. Garbage chutes in buildings and structures are provided with valves provided by the project. The valves are in the closed position, kept in good order and provided with a seal in the porch.

Footnote. The rules are supplemented by paragraph 2-50 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-51. The doors of the waste bin chambers are kept locked at all times.

Footnote. The rules are supplemented by paragraph 2-51 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-52. Elevators and elevators (with the exception of fire elevators) in buildings and ground structures automatically descend to the main landing floor in the event of a fire, and in underground structures they rise to the upper floor and de-energize.

Footnote. The rules are supplemented by paragraph 2-52 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-53. Drives of escalators (travelators) are automatically switched off in the event of a fire .

Footnote. The rules are supplemented by paragraph 2-53 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-54. Buildings and structures, as well as outdoor technological installations, are equipped with serviceable lightning protection devices provided for by the project.

Footnote. The rules are supplemented by paragraph 2-54 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-55. To protect against secondary manifestations of lightning and static electricity charges in all metal structures of technological devices, tanks, gas pipelines, oil pipelines, oil product pipelines and other devices located inside buildings and in open spaces in which flammable or combustible liquids are handled, stored or processed, as well as combustible gases, protective earthing is provided.

Footnote. The rules are supplemented by paragraph 2-55 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-56. Grounding devices designed to protect personnel from electric shock or lightning protection may be used to discharge static electricity.

Footnote. The rules are supplemented by paragraph 2-56 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-57. Technological equipment and pipelines located in buildings, structures, as well as external technological installations and overpasses are provided with protective grounding in accordance with the requirements of order № 230 .

It is not allowed to use technological pipelines of buildings and structures as grounding (zeroing) conductors.

Footnote. The rules are supplemented by paragraph 2-57 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-58. Metal overpasses and metal pipelines laid along them at the beginning and end of the overpass, as well as at least 300 m along their length, are connected to each other and to protective grounding devices.

Footnote. The rules are supplemented by paragraph 2-58 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-59. The connection of down conductors with each other, with grounding devices and technological devices is carried out by welding.

Footnote. The rules are supplemented by paragraph 2-59 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-60. The sewer network of industrial enterprises, in the technological processes of which flammable and combustible liquids, as well as combustible vapors and gases, are used, is provided with hydraulic seals. The height of the liquid layer in each hydraulic seal is assumed to be at least 0.25 m. The design of the hydraulic seals is ensured by the possibility of their periodic cleaning.

Footnote. The rules are supplemented by paragraph 2-60 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-61. Hydraulic seals (siphons), which exclude the spread of flame through pipelines of storm, industrial and integrated sewerage systems of buildings and structures that use flammable and combustible liquids, are constantly kept in good condition.

Operation of sewer systems with faulty or incorrectly made hydraulic locks is not allowed .

Footnote. The rules are supplemented by paragraph 2-61 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-62. The production and integrated sewerage systems of enterprises, in the technological processes of which flammable and combustible liquids, as well as combustible vapors and gases, are kept closed throughout.

Sewerage manholes are closed with covers and covered with sand with a layer of 0.1 m.

Footnote. The rules are supplemented by paragraph 2-62 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-63. The temperature of industrial wastewater when discharged into the industrial and integrated sewerage systems of enterprises on the territory of which buildings, structures and (

or) external technological installations of categories AO, BO and CO are located in terms of explosion and fire hazard, should not exceed 40 ° C.

Draining of flammable and combustible liquids into sewerage systems (including in case of accidents) is not allowed.

Footnote. The rules are supplemented by paragraph 2-63 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-64. Pipelines supplying gas to household and industrial appliances for its combustion, at facilities put into operation after completion of construction, overhaul, reconstruction and (or) technical re-equipment, are equipped with temperature-sensitive shut-off devices (valves) that automatically shut off the gas pipeline when the ambient temperature reaches 100 ° C indoors in case of fire. These devices (valves) are installed indoors at the highest possible height, directly in front of the shut-off device, gas meter and other pipeline fittings on the gas pipeline.

Footnote. The rules are supplemented by paragraph 2-64 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-65. Temperature-sensitive locking devices (valves) may not be installed in:

1) buildings of the V degree of fire resistance, as well as in buildings whose gas pipelines are equipped with an electromagnetic valve located outside the building and blocking the gas pipeline when a gas analyzer or automatic fire alarm is triggered;

2) buildings of hazardous production facilities, gas pipelines of which are equipped with a solenoid valve, and rooms with gas combustion plants are protected by automatic fire extinguishing installations.

Footnote. The rules are supplemented by paragraph 2-65 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-66. At the entrance to buildings (including individual residential buildings) or structures in which gas cylinders are stored or used, fire safety warning signs with the inscription “ Flammable. Cylinders with gas”.

Footnote. The rules are supplemented by paragraph 2-66 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-67. The head of the organization ensures compliance with the design and estimate documentation and the constant presence in good condition of devices for protecting the premises of the engine and hardware rooms of ammonia refrigeration plants from destruction during an explosion (including easily dropped structures, knockout panels, special glazing, opening transoms of window blocks).

The use of rooms of refrigerated chambers and refrigeration units for other than their intended purpose is not allowed.

Footnote. The rules are supplemented by paragraph 2-67 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-68. Maintenance and repair of ammonia refrigeration units in buildings and structures during events (including sports, cultural and entertainment events) with mass attendance of people are not allowed.

Footnote. The rules are supplemented by paragraph 2-68 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-69. It is not allowed to make holes in the fire zones of refrigerating chambers, pass pipes, install fasteners, and also line them with combustible materials.

Footnote. The rules are supplemented by paragraph 2-69 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-70. Placement of refrigeration units in vestibules of refrigerated chambers is not allowed.

Placement of refrigeration units with brine cooling of chambers is allowed only in the engine room, which has an exit to the outside or through a corridor separated from other rooms by doors.

Footnote. The rules are supplemented by paragraph 2-70 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-71. In the process of operation and repair, it is not allowed to replace the non-combustible thermal insulation of refrigerating chambers with a combustible one provided for by the project.

Footnote. The rules are supplemented by paragraph 2-71 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-72. Devices for manual start-up of fire extinguishing installations, locking and starting devices for fire extinguishers and doors of fire cabinets are sealed.

Footnote. The rules are supplemented by paragraph 2-72 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

2-73. Fire cabinets are installed in any of the three options (mounted, attached and built-in), with the possibility of placing a set of fire hydrant equipment and at least two hand-held fire extinguishers, with a mass of fire extinguishing agent charge of a fire extinguisher of at least 5 kg, as well as personal protection and rescue equipment of people.

Footnote. The rules are supplemented by paragraph 2-73 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

The procedure for the maintenance of
electrical installations of buildings and structures

3. All current-carrying parts, switchgears, devices and measuring instruments, as well as explosive type safety devices, knife switches and all other starting devices and devices of electrical installations are mounted only on non-combustible bases (marble, textolite, synthetic-resin based paper).

4. Connections, terminations and branches of conductors of wires and cables, in order to avoid dangerous transitional resistances in relation to fire, are made by crimping, welding, soldering or special clamps.

5. The junctions and branches of the cores of wires and cables, as well as the connecting and branch clamps, are insulated, equivalent to the insulation of the cores of entire places of these wires and cables.

6. Connection and branching of wires and cables, with the exception of wires laid on insulating supports, are carried out in junction and branch boxes, insulating cases of connecting and branch clamps, special niches of building structures, inside the housings of electrical installation products, devices and machines. When laying on insulating supports, the connection or branching of the wires is carried out directly at the insulator, or on the clamps, as well as on the roller.

6-1. Electrical installations and electrical appliances in the premises at the end of the working time (shift) are de-energized.

Emergency lighting, fire extinguishing and fire water supply installations, fire and fire alarms remain energized. Other electrical installations and electrical products (including those in residential premises) may be left energized if this is due to their functional purpose and (or) provided for by the requirements of the operating instructions.

Footnote. The rules are supplemented by paragraph 6-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-2. It is not allowed to lay and operate overhead power lines over combustible roofs, sheds, as well as open warehouses (stacks, stacks) of combustible substances, materials and products.

Footnote. The rules are supplemented by paragraph 6-2 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-3. Electric motors, lamps, wiring, switchgears are cleaned of combustible dust at least twice a month, and in rooms with significant dust emissions - at least four times a month.

Footnote. The rules are supplemented by paragraph 6-3 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-4. When operating electrical installations, it is not allowed:

1) use electrical networks and receivers of electrical energy in violation of the safety requirements set forth in the manufacturer's instructions, electrical receivers with malfunctions that can lead to a fire (cause sparking, short circuit, excessive heating of cable and wire insulation, failure of automatic control systems, emergency and fire protection), as well as operate electrical wires and cables with damaged or lost insulation properties;

2) use damaged and loose sockets, circuit breakers, other electrical installation products;

3) use electric heaters in the absence or malfunction of thermostats provided for by the design;

4) wrap electric lamps and lamps with paper, cloth and other combustible materials, as well as operate lamps with incandescent lamps with the shades (diffusers) and protective nets provided for by the design of the lamp removed;

5) use electric irons, electric stoves, electric kettles and other electric heaters without special stands (power sockets, heating discs) that exclude the risk of fire, if their presence is provided for by the manufacturer's instructions;

6) use electric heaters in all explosive and fire hazardous premises;

7) use non-standard (home-made) electric heaters, use non-calibrated fuse-links or other home-made overload and short circuit protection devices;

8) place (storage) combustible (including flammable) substances and materials near electrical panels, electric motors and starting equipment;

9) use in explosive and fire hazardous areas electrical equipment that does not have a designation of the level and type of protection against explosion and (or) fire of the manufacturer;

10) leave connections and ends of electrical wires and cables uninsulated.

Footnote. The rules are supplemented by paragraph 6-4 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-5. Checking the condition of stationary equipment, electrical wiring of the power and lighting networks, testing and measuring the insulation resistance of wires, cables and grounding devices are carried out during commissioning, and then according to the schedule, but at least once every three years. The measurement results are documented in an act (protocol).

Footnote. The rules are supplemented by paragraph 6-5 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-6. When installing and operating spotlights, it is not allowed to use combustible materials as fastening structures and light-retaining and reflective screens.

Spotlights and spotlights are placed at a distance of at least 0.5 m from combustible structures and materials, and lens spotlights - at least 2 m.

Light filters for spotlights and spotlights are made of non-combustible materials.

Footnote. The rules are supplemented by paragraph 6-6 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-7. In the premises and corridors of closed switchgears, it is not allowed to place storage rooms, as well as to store electrical equipment, spare parts, containers with flammable liquids and cylinders with various gases.

Footnote. The rules are supplemented by paragraphs 6-7 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-8. Doors of sectional partitions of cable structures are provided for self-closing, opening in the course of evacuation from the building and are provided with seals in the porches.

During the operation of cable structures, these doors are and are fixed in the closed position.

It is allowed, according to the conditions of ventilation of cable rooms, to fix self-closing doors in the open position, if automatic devices are used to close them, which are triggered in case of fire from a fire alarm pulse in the corresponding compartment of the structure.

Footnote. The rules are supplemented by paragraphs 6-8 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-9. Cable lines laid in metal boxes are sealed with non-combustible materials, and the box itself is separated by partitions with a fire resistance rating of at least EI 45 in the following places:

1) at the entrance to other cable structures;

2) on horizontal sections of cable ducts every 30 m, as well as when branching into other ducts with electric cables;

3) on vertical sections of cable ducts every 20 m.

When passing through floors, the same fire-resistant seals are additionally made at each ceiling mark.

Sealing points for cable lines laid in metal boxes are marked with red stripes on the outer walls of the boxes. If necessary, additional explanatory inscriptions are made.

Footnote. The rules are supplemented by paragraph 6-9 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-10. Anti-corrosion coatings used to protect metal sheaths of cables and metal surfaces on which they are laid are provided as non-combustible.

Footnote. The rules are supplemented by paragraph 6-10 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-11. It is not allowed to store combustible materials and products that are not related to this installation in the premises of devices that supply (feed) oil to oil-filled cables.

Footnote. The rules are supplemented by paragraph 6-11 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

6-12. If malfunctions of electrical installations and household electrical appliances are detected (excessive heating or damage to the insulation of cables and wires, smoke emission, sparking), they are immediately de-energized. They can only be switched on again after the faults have been eliminated.

Footnote. The rules are supplemented by paragraph 6-12 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

Junction and branching boxes are provided with protective covers.

7. The device and operation of temporary power grids is not allowed. An exception may be temporary lighting installations and electrical wiring that feed the places of construction and temporary repair and installation work. The voltage of the temporary electrical network should not exceed 36 Volts, and in especially dangerous places (especially damp areas, wells, metal tanks, boilers) not higher than 12 Volts.

8. Portable lamps are equipped with protective glass caps and grids. For these lamps and other portable electrical equipment, flexible cables and wires with copper conductors are used , specially designed for this purpose, taking into account possible mechanical effects.

9. To power automatic fire extinguishing installations, fire alarms, emergency lighting, an independent electrical network is provided, starting from the input distribution device to the consumer of electricity.

10. Temporary electrical wiring at the construction site is carried out with insulated wire, suspended on cables and installed on reliable supports at a height of at least 2.5 meters above workplaces, 3 meters above walkways and 6 meters above driveways.

11. Lighting spotlights on the territory of the construction site are installed on separate supports.

It is not allowed to install searchlights on roofs made of combustible materials and buildings with polymer insulation.

Procedure for maintenance of heating systems of buildings and structures

12. In production and other premises, furnaces are fired by specially designated persons (stokers) who are instructed on fire safety measures during the operation of heating appliances.

13. Furnace furnaces in buildings and structures (with the exception of residential buildings) are stopped at least two hours before the end of work, and in objects with round-the-clock stay of people two hours before going to bed.

In children's institutions with daytime stay of children, the firing of stoves ends no later than one hour before the arrival of children.

14. In attics, all chimneys and walls in which smoke channels pass must be whitewashed.

14-1. Chimneys, chimneys and other elements of heating furnaces and systems are cleaned of soot immediately before the start, as well as during the heating season at least:

1) once every three months - for heating stoves;

2) once every two months - for furnaces and continuous hearths.

In attics where smoke channels run, all chimneys and walls are whitewashed.

Cookers and other continuous (long-term) furnaces are cleaned at least once a month.

Footnote. The rules are supplemented by paragraph 14-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

15. No liquid fuel leakage or gas leakage from the fuel supply system is allowed.

16. When operating heat generators, the following requirements are observed:

3) the volume, placement of the fuel tank and its supply to the air heater must comply with the requirements of passport data and technical specifications for these devices;

4) burners must operate stably without breaking off the flame and flashing it inside the burner within the necessary regulation of the heat load of the unit.

17. During the operation of heat generating devices, it is not allowed:

1) work on the apparatus with broken fuel lines and with a faulty shut-off valve on it, loose connections between the nozzle body and the heat generating apparatus, faulty chimneys, electric motors and protection devices, as well as in the absence of thermal protection of the electric motor and other malfunctions;

2) work on the apparatus with open fuel tanks;

3) work with an unadjusted nozzle (with a violation of the fuel supply);

4) arrange fences made of materials of combustibility groups C3-C4 near the apparatus and service tanks;

5) warm the fuel lines with an open flame;

6) ignite the working mixture through the viewing eye;

7) adjust the gap between the electrodes of the candles when the heat generating apparatus is running;

8) operation of the heat generating apparatus in the absence and malfunction of the protective grille on the air intake manifolds;

9) leave running heat-generating devices unattended or entrust their supervision to children;

10) violate the operating conditions of heat generating devices, place them in premises (places) unsuitable for these purposes;

11) operate heat generating equipment operating on various types of fuel without checking the good condition of chimneys, ventilation ducts and the presence of draft in them.

17-1. Apparatuses operating on liquid fuel are installed in a metal pan that can accommodate the entire volume of fuel in the fuel tank in case of an emergency spill. The specified pallet is filled with sand or other non-combustible adsorbent.

Footnote. The rules are supplemented by paragraph 17-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-2. In residential premises, it is not allowed to use heat generating devices operating on liquid fuel with a flash point below 61 ºC , as well as flammable liquids as a heat carrier in heating systems.

Footnote. The rules are supplemented by paragraph 17-2 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-3. Heat-generating devices operating on liquid, solid and gaseous fuels are provided with serviceable doors and fire-prevention separations (retreats) from combustible structures established by the standards.

At least two valves are installed on the fuel line near each nozzle of heating boilers and heat generators: one at the furnace, the other at the fuel tank.

Footnote. The rules are supplemented by paragraph 17-3 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-4. During the operation of central boiler houses intended for heating organizations and residential buildings in settlements, it is not allowed:

1) store liquid fuel in premises not intended for these purposes;

2) use as fuel combustible substances (solid, liquid, gaseous) not provided for by the instructions for the operation of the equipment;

3) operate heat generating installations in case of leakage of liquid fuel or gas leakage from fuel supply systems;

4) ignite the installations without preliminary purging of the fireboxes and supply fuel when the nozzles or gas burners are not burning;

5) work in the absence, malfunction or shutdown of the control and regulation devices provided for by the design of the heat generating installations;

6) dry combustible materials on boilers and steam pipelines.

Footnote. The rules are supplemented by paragraph 17-4 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-5. During the operation of furnace heating is not allowed:

1) leave heating stoves unattended, as well as entrust supervision of them to children;

2) place fuel prepared for combustion, as well as other combustible substances and materials on the pre-furnace sheet;

3) use flammable and combustible liquids for ignition of solid fuel stoves;

4) to heat with coal, coke and gas furnaces not intended for these types of fuel;

5) to heat stoves in the premises during meetings and other public events in them;

6) reheat furnaces;

7) dry combustible substances and materials (shoes, clothes, firewood) at a distance of less than 0.5 m from the surface of the stove and chimneys;

8) use valves (gates) without openings provided for by the design standards;

9) use ventilation and gas ducts as chimneys;

10) fire furnaces with malfunctions, cracks and crevices.

Footnote. The rules are supplemented by paragraph 17-5 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-6. Ash and slag containing red-hot and smoldering materials, after raking out from the furnaces, are removed to a place specially designated for them, excluding the possibility of a fire, and spilled with water.

Footnote. The rules are supplemented by paragraph 17-6 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-7. It is not allowed to place combustible substances, materials, products and equipment at a distance of less than 1.25 m to the furnace openings of furnaces and less than 0.7 m to other heated parts of furnaces.

Footnote. The rules are supplemented by paragraph 17-7 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-8. Chimneys of solid fuel boilers are equipped with spark arresters and cleaned of soot in accordance with the requirements of this section.

Footnote. The rules are supplemented by paragraph 17-8 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-9. Fuel (coal) is stored in rooms specially adapted for this purpose or in specially designated areas located no closer than 8 m from combustible buildings.

Footnote. The rules are supplemented by paragraph 17-9 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-10. When installing prefabricated stoves in the premises of dormitories, administrative, public and domestic buildings of industrial enterprises, in residential buildings, the requirements of the instructions of manufacturers of these types of products, as well as the requirements of design standards for heating systems, are met.

Footnote. The rules are supplemented by paragraph 17-10 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-11. When installing temporary metal furnaces, the following fire safety requirements are ensured:

1) metal furnaces are provided with legs not less than 0.2 m high;

2) metal furnaces are installed at a distance of at least:

1 m - from wooden structures, furniture, goods, racks, showcases, counters and other equipment;

0.7 m - from structures protected from fire;

1.25 m - from furnace holes to wooden structures and other equipment.

Footnote. The rules are supplemented by paragraph 17-11 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-12. When removing a metal chimney through a window, a sheet of roofing iron replacing the cutting is inserted into it, with a size of at least three chimney diameters.

The end of the pipe is installed at least 0.7 m behind the wall of the building and is directed upwards by a branch pipe 0.5 m high.

The branch pipe, taken out of the window of the upper floor, protrudes above the eaves by at least 1 m. A cap is installed on the branch pipe.

Footnote. The rules are supplemented by paragraph 17-12 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-13. Ventilation chambers, cyclones, filters, air ducts are cleaned of combustible dust, production waste and fatty deposits.

The frequency of cleaning is carried out within the time limits established in the Sanitary and epidemiological requirements for ventilation and air conditioning systems, their cleaning and disinfection, approved by order of the Minister of National Economy of the Republic of Kazakhstan dated December 9, 2015 No. 758 (registered in the register of state registration of regulatory legal acts No. 12846), with the drawing up of the corresponding act in any form.

Footnote. The rules are supplemented by paragraph 17-13 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-14. When operating ventilation and air conditioning systems, it is not allowed:

1) leave the doors of the ventilation chambers open;

2) close exhaust channels, openings and grilles;

3) connect gas heaters to the air ducts;

4) burn out accumulated fat deposits, dust and other combustible substances in the air ducts.

Footnote. The rules are supplemented by paragraphs 17-14 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-15. The operation of technological equipment in rooms with explosive and fire hazardous industries (installations) with faulty and disconnected hydraulic, dry filters, dust collectors and other devices of ventilation (aspiration) systems is not allowed.

Footnote. The rules are supplemented by paragraph 17-15 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-16. To prevent solids from entering the fans, which remove combustible dust, fibers and other wastes with solid impurities, stone traps are installed in front of them, and magnetic separators are installed to extract metal objects.

Footnote. The rules are supplemented by paragraphs 17-16 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-17. On pipelines of pneumatic transport and air ducts of local suction systems, tight-closing hatches are provided for periodic inspection, cleaning of systems and extinguishing a fire in the event of a fire.

Footnote. The rules are supplemented by paragraphs 17-17 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-18. Inspection hatches are located no more than 15 m apart, as well as at tees, at turns, in places where pipelines pass through walls and ceilings.

Footnote. The rules are supplemented by paragraphs 17-18 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-19. Filters for cleaning the air removed from the dedusting devices of machines and units are installed in isolated rooms.

Footnote. The rules are supplemented by paragraphs 17-19 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

17-20. During recirculation, the dusty air removed from the equipment is subjected to two-stage cleaning using filters.

Footnote. The rules are supplemented by paragraph 17-20 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

18. Electric heaters are allowed to be used with a serviceable alarm and blocking, which excludes the supply of electricity to the heating elements when the fan is not working, and automatic control over the temperature of the outgoing air and its regulation, provided for by electrical and thermal protection.

19. When operating heaters, it is not allowed:

1) turn off the alarm or blocking;

2) use combustible materials for a flexible insert between the electric heater housing and the fan;

3) exceed the maximum allowable air temperature at the outlet of the electric heater, set by the manufacturer;

4) turn on the electric heater when the fan is not working (blocking is checked before each start-up of the unit);

5) dry clothes or other combustible materials on or near an electric heater.

19-1. The design of the smoke channel is provided with technological holes for their periodic cleaning of soot.

Footnote. The rules are supplemented by paragraph 19-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

19-2. The floor made of combustible materials under the furnace door of solid fuel heat generating devices is protected by a pre-furnace metal sheet measuring at least 0.5 x 0.7 m without holes, located with its long side along the furnace.

Footnote. The rules are supplemented by paragraph 19-2 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

19-3. The connection of the ash pans of heat generating apparatuses with the space under the floors on the logs is not allowed.

Connection of ash pans of heat generating apparatuses with basement and basement premises is allowed only with the help of channels made of non-combustible materials.

Footnote. The rules are supplemented by paragraph 19-3 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

The order of maintenance of ventilation systems

20. Fire-retarding devices (flaps, dampers, valves) in air ducts, blocking devices for ventilation systems with automatic fire alarm or fire extinguishing installations, automatic ventilation shutdown devices in case of fire are checked within the time limits established by the technical documentation and are kept in good condition. Sensitive elements of the valve drive (fusible locks, easily combustible inserts, temperature-sensitive elements) are timely cleaned from contamination with combustible dust.

20-1. The structures of air ducts and channels of supply and exhaust smoke ventilation systems and transit channels (including air ducts, collectors, shafts) of ventilation systems for various purposes are fire-resistant from non-combustible materials.

Footnote. The rules are supplemented by paragraph 20-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

20-2. Crossing points of enclosing building structures with fire-resistant channels of ventilation systems and structures of supports (suspensions) are made with a fire resistance limit not less than the limits required for such channels. For sealing detachable joints (including flanged ones) of fire-resistant air duct structures, only non-combustible materials are allowed.

Footnote. The rules are supplemented by paragraph 20-2 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

20-3. Normally open fire dampers are equipped with automatic and remotely controlled actuators. The use of temperature-sensitive elements in the composition of such drives is provided only as a backup.

For normally closed fire dampers and smoke dampers, the use of actuators with temperature sensitive elements is not allowed.

The minimum required resistance to smoke and gas permeability is provided by the tightness of the construction of fire and smoke dampers of various types to each other.

Footnote. The rules are supplemented by paragraph 20-3 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

20-4. The actual values of the parameters of ventilation, air conditioning and smoke protection systems (including the limits of fire resistance and resistance to smoke and gas penetration) are established based on the test results.

Footnote. The rules are supplemented by paragraph 20-4 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

21. Storage of any equipment and materials in the ventilation chambers is not allowed. The ventilation chambers are permanently locked. Unauthorized persons are not allowed to enter the ventilation chambers.

21-1. Combustion products from heat generating devices are removed outside buildings and structures through smoke channels specially designed for this purpose. It is not allowed to use air ducts of the ventilation system as smoke channels.

Footnote. The rules are supplemented by paragraph 21-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

Order of maintenance of refrigeration units

22. At least two gas analyzers of refrigerant vapors are installed in the engine and hardware rooms of ammonia refrigeration units, which are blocked with supply and exhaust ventilation and compressor shutdown devices.

23. Cylinders with refrigerants (ammonia) are stored in special warehouses. Their storage in engine rooms is not allowed.

Placement of communications with a refrigerant in evacuation corridors and passages, stairwells, elevator shafts, as well as their transit laying through fire and explosion hazardous premises is not allowed.

24. The ventilation systems of the engine and equipment rooms are separated from the ventilation systems of other rooms.

25. Emergency lighting in the hardware and engine rooms is constantly maintained in good condition.

26. Explosion-proof electrical equipment in the engine and hardware rooms of ammonia refrigeration units is kept in a technically sound condition.

27. During the operation of the premises of the engine and hardware rooms of ammonia refrigeration plants, it is not allowed to replace easily dropped elements (panels, windows, doors) with other types of structures.

28. The tightness of compressors and gas pipelines is subject to systematic control. If a gas leak is detected, the compressor must be stopped to correct the problem. If a refrigerant leak is detected through the compressor seals, they should be replaced immediately.

29. Repair of equipment under pressure, stuffing and tightening of seals on operating compressors and pumps, sealing of flanges on devices and pipelines without reducing (bleeding) the pressure in the system is not allowed.

All moving parts of compressors are regularly lubricated.

30. Heating cylinders with refrigerants to speed up the filling of the system is not allowed. Cylinders with ammonia are placed at a distance of at least 10 meters from open sources of fire and at least 5 meters from heating appliances.

31. It is allowed to store lubricants in the compressor rooms only in a closed metal container in an amount not exceeding the shift requirement.

32. In ammonia refrigeration units, the possibility of liquid refrigerant entering the compressor is excluded.

33. Descent of oil from the apparatus is carried out through oil collectors after preliminary suction of the refrigerant dissolved in it.

The oil is drained from the oil sump into a vessel with water with the ventilation running.

34. In the premises of ammonia refrigeration plants, internal fire hydrants are equipped with spray nozzles that allow spraying water to be obtained.

35. It is not allowed to install devices or equipment in the premises of compressor compartments that are not structurally or technologically related to compressors, as well as to arrange desks and pantries.

36. Warming of pipelines, locking devices and other equipment with the help of open fire is not allowed. Hot water, steam or heated sand are used to warm them.

37. Pipelines with refrigerants, depending on the substance transported through them, are provided with an identification color and digital designations.

38. Changing the existing schemes for the location of pipelines with refrigerant, as well as replacing the refrigerant without the development of an appropriate plan and its approval is not allowed.

39. In places of possible mechanical damage to pipelines with refrigerants, protective covers, nets, bridges are installed.

40. Replacement of non-combustible thermal insulation of pipelines with refrigerants for combustible is not allowed.

41. The premises of the refrigeration station shall be equipped with self-closing doors with a tight porch.

2. Procedure for maintenance of settlements

Procedure for maintenance of residential buildings and dormitories

42. It is not allowed to arrange various kinds of workshops and warehouses in apartments of residential buildings and living rooms of hostels, where explosive and flammable substances and materials are used and stored.

43. In apartments and living rooms it is not allowed:

1) store flammable and combustible liquids, gas cylinders on balconies and loggias;

2) smoking in bed;

3) throw cigarette butts from balconies and loggias;

4) uncontrollably leave cooking food on the stove.

44. It is not allowed to use technical floors, technical undergrounds, ventilation chambers, boiler rooms, machine rooms, elevators and attic rooms for other than their intended purpose (for warehouses, archives, as well as rooms for other purposes), as well as for storing

combustible materials. The doors of these premises are locked, the keys to which are located in a certain place accessible for receipt at any time of the day, with round-the-clock stay of duty personnel.

45. In dormitories (with the exception of residential premises), smoking areas are equipped with the inscription “Smoking Area”, bins or ashtrays made of non-combustible materials.

46. It is not allowed to use open fire to detect gas leaks from gas pipelines, gas cylinders and appliances, to thaw frozen pipelines, utilities. Frozen pipelines, equipment, utilities, gas cylinders are heated with hot water, steam and heated sand.

47. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

48. Candlesticks, lamps using open flames are installed on stable non-combustible bases and are operated in conditions that exclude their tipping over.

49. When using candles, it is not allowed:

1) put burning candles in a draft;

2) place burning candles near flammable materials;

3) leave burning candles unattended;

4) leave burning candles in places accessible to children and pets.

50. In individual residential buildings, it is allowed to arrange premises for dry heat baths (saunas) in accordance with the requirements of paragraphs 143-147 of these Rules.

Footnote. Paragraph 50 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

The procedure for maintaining cottage buildings cooperatives, horticultural partnerships, territories of settlements

Footnote. The title of the chapter is as amended by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

51. Signposts with the name of the cottage buildings cooperative, horticultural partnership and the distance to them are installed on the paths of vehicles to horticultural associations at the exit from the main highway, and then at each turn or fork in the road.

52. At the entrances to the territory of cottage buildings cooperatives, horticultural partnerships, garage cooperatives, diagrams are posted with both existing and under construction and temporary buildings (structures), entrances, entrances, fire lanes, locations of fire water supply sources, fire extinguishing and communication equipment, fire fighting

equipment in accordance with the requirements of SR RK SCSt P 12.4.026-2002 “Signal colors, safety signs and signal markings. General technical conditions and application procedure”.

The circuits are made of weather resistant material.

Footnote. Paragraph 52 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

53. On the territory of rural settlements, cottage buildings cooperatives, horticultural associations should:

1) install special devices for giving sound signals (a siren, a bell, pieces of a rail with a beater) to alert people in case of a fire and create water supplies for fire extinguishing purposes;

2) in the summer, install containers with a total water supply of at least 200 liters or a fire extinguisher near each residential building;

3) it is not allowed to organize dumps of combustible waste. To collect non-recyclable waste and garbage on the territory of residential buildings and dormitories (not equipped with a garbage chute), country cooperatives, gardening associations, garages and open parking lots , metal containers with closing lids are installed in specially equipped places. Tanks are installed on concrete or asphalt sites at a distance of at least 25 meters from buildings and structures.

53-1. In rural settlements, gardening partnerships, cottage buildings cooperatives (partnerships, consumer cooperatives, non-profit partnerships), on the territory of which fire service units are not located, local executive bodies or boards of these non-profit associations of citizens organize the acquisition and storage in a specially designated place or in individual residential buildings (outbuildings) of members of voluntary fire brigades, fire motor pumps with a set of hoses and barrels, primary fire extinguishing equipment, non-mechanized tools and fire equipment that are used to extinguish fires.

Responsible for the delivery of fire motor pumps with the necessary set of hoses and barrels to the fire site are appointed.

These settlements are provided with fire motor pumps based on the number of estates (plots):

1) no more than 300 - one portable fire motor pump;

2) from 300 to 1 thousand - one trailed fire motor pump;

3) more than 1 thousand - at least two trailed fire motor pumps.

Footnote. The rules are supplemented by paragraph 53-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-2. On the territory of rural settlements, gardening associations, cottage buildings cooperatives, block-container buildings, local executive bodies and boards of citizens'

associations, respectively, install sound alarms to alert people about a fire, store a supply of water for fire extinguishing purposes, and also establish a procedure for calling fire departments services.

Footnote. The rules are supplemented by paragraph 53-2 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-3. In the summer, in rural areas, gardening associations, cottage buildings cooperatives and enterprises, local executive bodies, boards of horticultural associations, cottage buildings cooperatives, heads of enterprises, respectively, establish a special fire regime and take additional measures to reduce the risk of fires, introduce restrictions on fire hazardous work, making fires, driving motor vehicles into forest areas, patrols are organized by the population and members of voluntary firefighting units of the territories of settlements and adjacent forest (steppe) areas with primary fire extinguishing equipment, as well as preparation for the possible use of equipment adapted for fire extinguishing purposes .

Footnote. The rules are supplemented by paragraph 53-3 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-4. The territory of settlements and organizations within the limits of fire breaks is promptly cleared of combustible waste, garbage, containers, dry grass and other combustible materials.

The territory of sanatoriums, rest homes and other health-improving institutions (including summer children's summer cottages, children's health camps) at a distance of 15 m from the walls of buildings (structures) is cleared of combustible deposits (dry grass, fluff, foliage).

Storage of combustible materials, parking of vehicles, construction (installation) of buildings and structures, including temporary ones, within fire breaks are not allowed.

Footnote. The rules are supplemented by paragraph 53-4 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-5. Roads, driveways and entrances to buildings, structures, open warehouses, outdoor fire escapes and sources of fire-fighting water supply are kept in good condition and accessible for the passage of fire equipment, and in winter they are cleared of snow. When barriers are installed at the entrance to the territory of groups of residential buildings united by a common space (courtyard), a stationary post with round-the-clock duty of personnel is organized, and the barriers are provided with a device for their manual opening.

On the closure of roads and driveways for their repair or for other reasons that impede the passage of fire equipment, the organization responsible for their operation shall promptly inform the state fire service authorities in the exit area where these roads and driveways are located.

For the period of road closure, detour direction signs are installed in appropriate places or crossings are arranged through the repaired sections of the road or driveways.

Footnote. The rules are supplemented by paragraph 53-5 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-6. Parking and parking of vehicles in driveways and at the entrances to buildings and structures that prevent the passage of fire equipment, as well as on the covers of fire hydrant wells, are not allowed.

Footnote. The rules are supplemented by paragraph 53-6 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-7. The use of open fire and smoking in explosive and fire hazardous areas of the territory, buildings and structures are not allowed. On the territory, in buildings and structures that do not belong to the category of explosive and fire hazardous objects, specially designated smoking areas are determined, which are indicated by fire safety signs "Smoking Area", equipped with a fire extinguisher (at least 5 kg in volume) and a bin made of non-combustible materials.

The colorographic image and placement (installation) of fire safety signs are provided in accordance with the requirements of SR RK SCSt R 12.4.026 “Signal colors, safety signs and signal markings. General technical conditions and application procedure” and SR RK 1174 “ Fire equipment for the protection of facilities. Main types. Accommodation and service.

Footnote. The rules are supplemented by paragraph 53-7 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-8. The territory of settlements and organizations is provided with outdoor lighting at night to quickly find fire hydrants, outdoor fire escapes and places for placing fire equipment, as well as entrances to the piers of fire reservoirs, to the entrances to buildings and structures.

The colorographic image and placement (installation) of fire safety signs are provided in accordance with the requirements of SR RK SCST R 12.4.026 “Signal colors, safety signs and signal markings. General technical conditions and application procedure” and ST RK 1174 “Fire equipment for the protection of facilities. Main types. Accommodation and service .

Footnote. The rules are supplemented by paragraph 53-8 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-9. On the territory of organizations, railway crossings ensure unhindered crossing of the railway track by fire trucks at any time of the day.

Footnote. The rules are supplemented by paragraph 53-9 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-10. On the territory of settlements (outside the boundaries of industrial enterprises), gardening partnerships and cottage buildings cooperatives, open storage (storage) of containers with flammable and combustible liquids, as well as cylinders with compressed and liquefied gases is not allowed.

Footnote. The rules are supplemented by paragraph 53-10 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-11. It is not allowed to arrange landfills of combustible waste on the territory of settlements and organizations.

Footnote. The rules are supplemented by paragraph 53-11 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

53-12. It is not allowed to clutter fire-prevention distances between buildings and structures with stacks of timber, lumber, other materials and equipment, use it for storage of materials, equipment and containers, for parking vehicles and construction (installation) of buildings and structures.

Footnote. The rules are supplemented by paragraph 53-12 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

54 . Excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

55. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

56. On the territory of a cottage buildings cooperative, horticultural partnership, fire shields are installed at the rate of one shield for every 20 plots.

57. On water towers, as well as water supply systems (diameter 100 millimeters or more) used in the summer, every 120 meters, devices are provided for the intake of water by fire equipment in case of fire. These devices are in good condition.

58. At the watchman of a cottage buildings cooperative, a horticultural partnership, a sign is posted indicating the exact address of the location of the two nearest telephones and the address of the nearest emergency agency (division).

59. When cottage buildings s, garden houses are closed for a long time, the power supply is de-energized, the valves (valves) of gas cylinders are tightly closed.

60. For settlements located in forests, executive bodies and forest owners provide for the installation of protective firebreaks, planting of deciduous plantings, and removal of dry vegetation in summer.

61. Residential buildings in rural areas shall be equipped with ladders reaching the roof, and on the roof - a ladder reaching the roof ridge.

62. In summer, in conditions of stable dry, hot and windy weather in rural settlements and enterprises, holiday villages, garden plots, it is not allowed to make fires, carry out fire hazardous work, fire stoves, kitchen hearths and solid fuel boilers.

63. Settlements and separately located objects are provided with serviceable telephone or radio communications to report a fire to the fire service.

64. Storage of roughage on the homestead plots of residential buildings is carried out at a distance of at least 15 meters from buildings and outbuildings. If it is impossible to store roughage at the specified distance, provided that the storage place is provided with an additional water tank of at least 500 liters, the distances are reduced to 5 meters.

65. It is not allowed to store haystacks, shocks, stacks of roughage, other combustible substances and materials:

1) on the roofs of sheds and other outbuildings;

2) under power lines;

3) at a distance of less than 3 meters from the external fence of the site.

It is not allowed to place stacks, shocks, stacks of roughage on the streets, roads, outside household plots.

Footnote. Paragraph 65 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

66. Transportation of roughage is carried out by a specially equipped vehicle, the exhaust pipes of which are led under the radiator and equipped with spark arresters.

67. Vehicles intended for the carriage of roughage shall be additionally equipped with two powder fire extinguishers.

68. The height of storage of roughage is not more than 4 meters from the ground level.

69. When using in settlements, on the territory of summer cottages and garden houses for cooking special devices for placing burning coal (brazier, barbecue, grill), it is necessary:

1) the place of the brazier (barbecue, grill) is equipped with one fire extinguisher with a mass of fire extinguishing agent of at least 2 kg or a container with water of at least 10 liters;

2) the minimum distance (in plan) from the edge of special devices for placing burning coal (brazier, barbecue, grill and similar) to buildings and structures should be at least 10 meters.

70. It is not allowed to install special devices for placing burning coal (barbecue, barbecue , grill):

1) in places with dry vegetation;

2) under the crowns of trees;

3) under canopies made of combustible materials;

4) in the premises of a residential building, as well as on balconies and loggias;

5) in outbuildings, garages, attics, on flat roofs.

71. It is not allowed to leave burning coal unattended. After the end of cooking, burning coal should be filled with water until the smoldering completely stops.

71-1. Campfires, burning of waste and containers are carried out at a distance of at least 50 m from buildings and structures.

Burning of waste and containers in places specially designated for these purposes is carried out under the supervision of service personnel.

Footnote. The rules are supplemented by paragraph 71-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

71-2. The territory of sanatoriums, rest houses and other health-improving institutions (including summer children's summer cottages, children's health camps) located in forests is provided along the perimeter with a protective mineralized strip with a width of at least 4 m, which excludes the possibility of fire spreading during forest fires to buildings and structures.

Footnote. The rules are supplemented by paragraph 71-2 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

71-3. For settlements located in forest areas, local executive bodies develop and implement measures that exclude the possibility of the spread of fire during forest fires on buildings and structures (installation of protective firebreaks, planting deciduous plantings, removal of dry vegetation in summer, etc.).

Footnote. The rules are supplemented by paragraph 71-3 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

Maintenance of hotels, motels, campsites

72. In hotels, motels, campsites, leaflets with the Fire Safety Rules are posted in the state and Russian languages. When foreign citizens live, the memos on fire safety measures are carried out in several languages.

73. On the inside of the door in the rooms of hotels, motels, campsites and hostels, individual plans for evacuating people in case of a fire are posted, indicating on the plan the number or room, emergency exits and routes to them, locations of fire extinguishing equipment and alarms with the necessary explanatory text.

74. In the premises of hotels on residential floors it is not allowed to place warehouses, offices, offices.

75. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

The procedure for maintaining scientific and educational institutions, preschool institutions

76. It is necessary to organize classes with pupils and students to study the rules of fire safety in everyday life and actions in case of a fire. With elementary grades, as well as in preschool institutions, it is necessary to conduct conversations on fire prevention topics. In general education schools, vocational schools, colleges and higher educational institutions - instructive classes on the study of fire safety rules.

77. In laboratories, it is allowed to store flammable and combustible liquids in quantities not exceeding the shift requirement. Delivery of liquids to the premises is carried out in a closed safe container.

78. It is not allowed to carry out work in a fume hood if it contains substances, materials and equipment that are not related to the operations performed, as well as if it malfunctions and the ventilation system is turned off.

79. Wooden parts of fume hoods, in which work with flammable substances is carried out, are painted with fire-retardant varnish or covered with non-combustible materials.

80. Spent flammable and combustible liquids at the end of the working day are collected in a special closed container and removed from the laboratory for further disposal.

81. It is not allowed to drain flammable and combustible liquids into the sewer.

82. Vessels in which work was carried out with flammable and combustible liquids, after the end of the experiment, are washed with fireproof solutions.

83. In the buildings of children's institutions, groups (classes) of children of preschool and primary school age are placed no higher than the third floor.

Footnote. Clause 83 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

84. When arranging furniture and equipment in classrooms, offices, workshops, bedrooms , canteens and other premises, unhindered evacuation of people and access to fire extinguishing equipment are ensured.

85. Classrooms and classrooms shall contain only the furniture, instruments, models, accessories, manuals necessary to ensure the educational process, which are stored in cabinets , on shelves or permanently installed racks.

86. The number of desks (tables) in classrooms and offices should not exceed the number established by the project documentation.

Footnote. Clause 86 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

87. At the end of classes in classrooms, laboratories and workshops, all explosive and flammable substances and materials are removed into non-combustible cabinets (boxes) installed in separate rooms.

88. Upon completion of work, an inspection of all premises is carried out with the disconnection of existing electrical consumers, except for devices and electrical appliances of continuous operation.

89. In school buildings and preschool institutions with round-the-clock stay of children, round-the-clock duty of service personnel is established with provision of telephone communication.

The procedure for maintaining places of summer recreation for children and health camps

90. Wooden buildings of children's health camps are provided for one-story. Frame and panel buildings are plastered, and have a non-combustible roof and non-combustible insulation.

91. It is not allowed:

1) cover buildings with combustible materials (straw, wood chips, reeds, roofing felt);

2) arrange kitchens, laundries in wooden buildings occupied by children;

3) place more than 50 children in buildings and structures of IV and V degrees of fire resistance;

4) heat stoves, use kerosene and electric heaters in rooms occupied by children in the summer;

5) arrange fireworks, use pyrotechnic products.

Footnote. Paragraph 91 as amended by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

92. Laundries and kitchens in places of summer recreation for children and health camps shall be located in separate buildings at a distance of at least 15 meters from wooden buildings in which children are accommodated.

93. It is not allowed to place children in places of summer recreation, health camps that are not provided with external fire-fighting water supply.

94. Places for children's summer recreation, summer recreation camps shall be provided with telephone communications, an alarm in case of fire and primary fire extinguishing equipment. They are equipped with 24-hour service personnel. A telephone is installed in the premises of the guards.

94-1. The head of the children’s camp develops a plan of organizational and technical measures to ensure fire safety and a scheme of the camp (base), which indicates all the buildings, places of residence of people (residential buildings, tents, etc.), places of household use, sources of outdoor fire-fighting water supply, parking lots, etc. The scheme is posted at the entrance to the territory of the camp (base).

Footnote. The rules are supplemented by paragraph 94-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

94-2. On the territory of summer recreation places for children located in forests or in close proximity to them, measures are provided to prevent the spread of fire (mineralized firebreaks at least 4 meters wide along the perimeter behind the fence from the side of the forest).

Footnote. The rules are supplemented by paragraph 94-2 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

94-3. When placing tents (yurts) on the territory of places of summer recreation for children and health camps, the area of the territory occupied by one group (1 or 2 rows) is taken to be no more than 800 square meters. The distance between groups is taken at least 15 meters, and between tents (yurts) - at least 2.5 meters.

Footnote. The rules are supplemented by paragraph 94-3 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

The procedure for maintaining venues for festive events

95. When organizing and holding events with a mass stay of people:

1) only premises provided with at least two emergency exits and located no higher than the 2nd floor in buildings with combustible ceilings are used;

2) Christmas trees are installed on a stable base and should not block the exits from the premises;

3) the branches of the Christmas tree must be located at a distance of at least 1 meter from the walls and ceiling;

4) in the absence of electric lighting in the room, events near the Christmas tree are held only during daylight hours;

5) illumination is carried out in compliance with the requirements of the Electrical Installation Rules approved by the authorized body in the field of electric power industry (hereinafter referred to as the Electrical Installation Rules). When using an electric lighting network without a step-down transformer, garlands are used on the Christmas tree only with serial switching on of light bulbs with a voltage of up to 12 volts. Permissible light bulb power 25 watts;

6) if a malfunction is detected in the illumination (heating of wires, flashing lights, sparking), it is immediately de-energized;

7) during the events, duty is organized on the stage and in the halls of persons responsible for fire safety, members of fire fighting units or employees of the fire fighting service. Premises where events are held are provided with primary fire extinguishing equipment.

Footnote. Clause 95 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

96. It is not allowed:

1) carry out events in the presence of bars on the windows of the premises in which they are held;

2) use arc spotlights, candles and firecrackers, arrange fireworks and other light fire hazardous effects that can lead to a fire;

3) carry out fire, painting and other fire and explosion hazardous and fire hazardous work;

4) use shutters on windows to darken rooms;

5) reduce the width of the aisles between the rows and install additional chairs and chairs in the aisles;

6) completely turn off the lighting in the room during performances;

7) fill the premises with people in excess of the established project documentation;

8) use home-made electric garlands, light and music installations, electromusical equipment, devices for rotating Christmas trees and create the effects of flashing Christmas garlands.

97. It is not allowed to use and launch uncontrolled flying lanterns using an open source of fire.

98. When using pyrotechnic products, it is not allowed:

1) arrange fireworks closer than 50 meters from buildings and structures, under canopies and tree crowns;

2) apply them in windy weather.

98-1. Events with a mass stay (evenings of rest, discos, New Year's and other performances) in buildings and structures are allowed only after they have been checked by the person responsible for ensuring fire safety for compliance with the requirements for ensuring the safety of people in the event of a fire.

The results of the inspection are entered into the inspection log and signed by the person responsible for ensuring fire safety during the event or the head of the organization. The form of the audit log is determined by the head of the organization independently.

Footnote. The rules are supplemented by paragraph 98-1 in accordance with the Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

Procedure for maintaining electoral precincts

99. At each electoral precinct, no later than 10 days before the start of its work, by order of the head of the facility (building, premises) where the electoral precinct is located, an appropriate fire regime is established, the provisions of these Rules are enforced, including:

1) the serviceability of the external and internal fire-fighting water pipes (with the mandatory start-up of water), the lighting and power networks, the start-up of smoke ventilation and automatic fire alarm and fire extinguishing systems are checked, and the necessary checks are carried out with the preparation of an act. All shortcomings are eliminated before the beginning of the work of the electoral precinct. Based on the results of the elimination of identified shortcomings or their absence, an act is drawn up on the readiness of the electoral precinct for work (acts are kept by the person responsible for ensuring fire safety of the facility until the end of the electoral precinct);

2) the availability, serviceability and constant readiness for use of primary fire extinguishing equipment, fire automation, communication and warning means are ensured;

3) members of the election commission and personnel involved in the service are instructed on fire safety measures and actions in case of fire against signature;

4) excluded by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication);

5) places for cooking are established and the procedure for using heating appliances is determined;

6) smoking areas are determined and equipped;

7) the procedure for inspection and closing of premises is established.

Footnote. Paragraph 99 as amended by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

100. Electoral precincts are located in buildings of I-III degrees of fire resistance not higher than the second floor. In the basement and above the premises of the electoral precinct there are offices, rest and eating rooms for members of the election commission and service personnel.

101. In rural areas, it is allowed to place no more than one electoral precinct in buildings of IIIa-V degrees of fire resistance. At the same time, the electoral precinct is located on the first floor, and temporary trade, buffets, and demonstrations of films and videos are organized outside the building.

102. The electoral precinct is provided with telephone communications. A sign with the telephone number of the fire service is installed (posted) at each telephone set.

Footnote. Paragraph 102 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

103. Arrangement of tables, booths, ballot boxes and equipment intended for voting is carried out along the perimeter of the premises, taking into account the safe evacuation of people and material values.

104. During the operation of electoral precincts, it is not allowed to carry out construction, repair and other work related to the use of open fire (lighting fires, burning garbage, waste, containers and carrying out electric and gas welding work), with the exception of emergency recovery work. These works are carried out under the constant supervision of service personnel.

105. Places of voter registration, distribution of ballots, voting booths, temporary retail outlets (buffets, stalls and other similar premises) are located in premises with at least two dispersed evacuation exits. It is allowed to arrange open wardrobes and organize temporary trade in the lobbies of the building, provided that the equipment placed does not reduce the width of the evacuation routes and does not prevent the evacuation of people in case of fire.

106. The movement of voters is organized in such a way that crossing and oncoming flows are excluded. Directions of movement of human flows are indicated by signs.

107. Signs for evacuation exits from the premises for registering voters, issuing ballots, voting, are kept in good condition and are switched on during the operation of the electoral precinct. If the device of light indicators "Exit" is not provided for by the project, these premises are provided with evacuation direction indicators.

108. During the operation of electoral precincts, it is not allowed:

1) install voting booths, ballot boxes and tables, arrange temporary retail outlets (trays, buffets), hold events (demonstrations of films and videos, etc.) along the evacuation routes from the premises and building of the electoral precinct;

2) obstruct evacuation routes, approaches to fire-extinguishing and communication equipment, power cut-off devices, as well as close the doors of emergency evacuation exits during voting-related events.

109. The buildings of the electoral precinct shall be equipped with emergency lighting in the event of a power outage.

The procedure for the maintenance of cultural, educational and entertainment institutions

110. Museums and art galleries are developing an evacuation plan for exhibits and other valuables, and circuses and zoos are developing an animal evacuation plan.

111. In the auditoriums and on the stands, all chairs and chairs are connected in rows with each other and firmly attached to the floor. It is allowed not to fix armchairs (chairs) in boxes with the number of seats not more than 12 if there is an independent exit from the box.

In the auditoriums used for dance evenings, with the number of seats not exceeding 200, with the obligatory connection of them in a row, the chairs are not fixed to the floor.

112. The wooden structures of the stage box (grids, stage flooring, suspension bridges, working galleries) are subjected to deep impregnation with flame retardants during the construction process.

These structures, as well as combustible decorations, stage and exhibition decoration, draperies in auditoriums and exposition halls, foyers, buffets are periodically treated with

flame retardants. The heads of the institution ensure the availability of an appropriate test report in accordance with the requirements of SCST P 50810 “Fire safety of textile materials. Decorative fabrics. Test methods for flammability and classification.

Footnote. Paragraph 112 as amended by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

113. Within the limits of the stage box of theatrical and entertainment establishments, scenery and stage equipment for no more than two performances may be located at the same time. Locations for storing decorations on the stage are indicated by signs. Storage of decorations, props, wooden machines, slopes, inventory and other property in the holds, on the grate and working platforms (galleries), under flights of stairs and platforms, as well as in the cellars under the auditoriums is not allowed.

114. When setting up productions around the stage floor, a free circular passage with a width of at least 1 meter is provided.

At the end of the performance, all the scenery and props are dismantled and removed from the stage to special warehouses (pantries, sheds, safes).

115. Smoking, use of open fire (torches, candles, candelabra), arc spotlights, fireworks and other types of fire effects are not allowed on the stage.

116. In sports halls with a height of 12 meters or more to the lower belt of the supporting structures of the coating, when using large-sized decorative design (for the entire height of the hall), additional measures are provided to protect this design (installation of temporary water curtains, quick-release fasteners).

117. Temporary seats for spectators (retractable, removable, collapsible), as well as seats in the stands of indoor and outdoor sports facilities are not allowed to be made of synthetic materials that emit highly hazardous and extremely hazardous combustion products during combustion. Storage of any combustible materials and equipment, as well as parking of machinery, are not allowed under temporary places. The space under the temporary stands before the start of each competition is cleared of combustible debris and dried grass.

Installation of side seats on escape routes is not allowed.

118. Temporary seats in evacuation hatches designed to place a background on the stands during sports and art festivals, opening and closing of international competitions or international events, as well as cultural and entertainment events, are removable. For their quick dismantling, special devices are provided and an appropriate number of persons are allocated for the performance of these works.

119. The arrangement of seats for spectators in sports halls is provided in such a way that there is no oncoming or crossing flows of spectators from permanent and temporary stands.

120. Devices for fastening temporary structures for seating spectators in indoor sports facilities, as well as fastening scaffolds, stages, rings are kept in good condition. Installation of such structures with faulty fasteners is not allowed.

121. Places for installation of television cameras at sports facilities should not be located in the aisles between the rows of stands and prevent the evacuation of people in case of fire.

122. In sports halls with stands for spectators in the presence of artificial ice surfaces, places are provided for temporary (for the period of competitions, performances, training, rehearsals) parking of ice-cleaning machines. Cars in the parking lot are installed in such a way that the estimated width of the escape routes does not narrow. At the end of competitions , performances, training, rehearsals, they are removed to specially designated rooms. Refueling of the ice machine with fuel at a temporary parking lot is not allowed.

123. In case of rackless storage of sports equipment, collapsible structures of halls, removable coverings of halls and other materials, they are stacked in stacks with an area of not more than 100 m^2 . The height of the stack is assumed to be no more than 2.5 meters and not less than 0.5 meters below the supporting structures of the floor or cover. The width of the passage between the stacks and between the stacks and walls is not less than 0.8 meters. The width of the aisles opposite the doorways in the storage and under-tribune rooms is not less than the width of the doors. Aisle widths and storage areas are indicated by clearly visible boundary lines marked on the floor.

Storage of materials and sports equipment on racks is carried out in such a way that they do not protrude beyond the dimensions of the racks.

124. In the premises for cleaning weapons, a metal box is provided for collecting oiled rags. At the end of the operation of the shooting gallery or shooting range, this box is cleaned and the contents are removed to the places of general garbage storage.

125. The special clothing of workers is stored in rooms specially allocated and equipped for this purpose. The administration of the facility for each room establishes a clear procedure for replacing oiled special clothes with clean ones.

126. In sports halls, the storage of combustible materials, as well as the arrangement of rooms with structures made of combustible materials directly under the attachment points of metal and wooden load-bearing structures, is not allowed.

For the storage of sports equipment made using synthetic materials with a high specific heat content and emitting highly hazardous and extremely hazardous combustion products during combustion, rooms are used that are separated from other rooms by fireproof partitions and ceilings.

In sports halls, during the period between training and competition, as well as at the end of them, landing pits with soft filling made of synthetic materials are covered with shields or tarpaulins.

Foam mats stacked within the halls in piles are covered with a tarpaulin.

127. When conducting competitions and trainings in technical sports:

1) refueling is carried out on specially designated areas with a hard surface and fencing made of non-combustible materials and located at a distance of at least 25 meters from the sports facility;

2) a place for refueling in the field is located on sites located at a distance of at least 15 meters from the race track and have a hard surface and a slope away from the race track;

3) at the refueling sites, duty is organized, signs prohibiting smoking and the use of open fire are installed, and a supply of primary fire extinguishing equipment is also provided;

4) in the places of preparation of vehicles for the start, it is allowed to carry out minor repairs and maintenance of these vehicles. Such seats are not located under the stands for spectators. To collect waste flammable and combustible liquids, metal containers with tight-fitting lids are provided. Preparation of vehicles in the space under the stands of sports facilities is not allowed;

5) places of permanent storage, repair and maintenance of vehicles in motor and motorcycle clubs are carried out in accordance with the provisions of these Rules. All electrical equipment for voltage regulation (rheostats, autotransformers, choke coils, starting rheostats) is located in control rooms located outside the transformable stages and platforms.

128. When using laser installations for staging or illumination lighting, generating laser units are installed in control rooms on bases made of non-combustible materials at a distance of at least one meter from the surfaces of combustible structures and decorations. For these works, laser systems with fireproof characteristics are used.

129. When installing spotlights and ramps, only non-combustible materials are used. Soffit housings are isolated from the cables supporting them. Searchlights and spotlights are installed at a distance of at least 0.5 meters from decorations and structures made of combustible materials. The distance from the lens spotlight to combustible decorations should be at least two meters.

130. Non-combustible material 8-10 millimeters thick is laid between the wooden ramp of the platform (stage) and the casings of electric lamps, and all portable electric lamps (lights) installed on the stage or platform are protected from the outside with non-combustible materials. When installing backlights directly on the stage platform or platform, mats made of non-combustible materials are installed under them. Soffits on the stage, platform, which do not have light filters and are used for working lighting of the stage, platform, are covered with glass.

All spotlights have a protective metal mesh installed on the side of the world, which prevents the glass of lamps and fragments of broken lamp bulbs from falling out.

131. The use of light filters made of combustible materials instead of glass in searchlights and spotlights is not allowed.

132. Lamps, the glasses of which have traces of darkening or bulging, are immediately replaced with new ones.

133. If it is necessary to carry out special fire effects associated with the use of pyrotechnic products and open flame sources that can lead to a fire, the head of the organization conducting fireworks develops and implements measures to prevent fires, including:

1) the date, place, start and end time of fireworks, the layout of pyrotechnic installations, the nature of the products used;

2) a scheme for linking storage and installation points for fireworks, pyrotechnic products to the terrain, indicating distances to buildings and structures, and a cordoning scheme for the fireworks venue, indicating the boundaries of the danger zone;

3) an order to appoint a person responsible for compliance with fire safety measures during fireworks;

4) layout of fire extinguishing means;

5) action plan for fire prevention.

134. At the sites from which pyrotechnic products are launched, smoking and making fire, leaving pyrotechnic products unguarded are not allowed.

135. Fireworks venues shall be protected by the fireworks organization.

136. Launch sites are provided with primary fire extinguishing equipment (fire extinguishers, containers with water or sand).

137. After the end of the fireworks, the launch site is carefully inspected in order to identify and collect unused products and elements of pyrotechnic charges.

The order of maintenance of medical and preventive premises, rehabilitation and rehabilitation centers of sports facilities

138. In the premises for medical care located at sports facilities, for the storage of flammable medicines, a cabinet made of non-combustible materials with a list of substances allowed for joint storage is provided. The cabinet is installed at a distance of at least a meter from heating and heating appliances.

Storage in a cabinet on the same shelf of drugs with different flammable properties is not allowed.

139. For temporary storage of used cleaning and dressing materials in the premises for medical care, a metal urn with a closing lid is installed. At the end of the work of the facility, the contents of the bin are taken out to the places of general waste storage.

140. In the premises for medical care located at sports facilities, it is not allowed to use heating devices operating on liquid or gaseous fuels (kerosene gases, kerosene lamps, stoves), as well as electric hotplates with an open spiral, to sterilize medical instruments.

The order of maintenance of premises used in the disinfection of water in pools

141. When using sodium or calcium hypochlorite, bleach and other preparations for water disinfection, a separate, well-ventilated room, protected from sunlight and precipitation, and also meeting the provisions of these Rules, should be provided for their storage.

142. When storing sodium hypochlorite, calcium and other chemical preparations, measures are provided to exclude the possibility of solutions drying out, heating them to temperatures above 40 ^{0} C, as well as contact with acids and organic substances.

The procedure for the maintenance of bath saunas

143. Electrical wires used to connect the stove, electric heaters to the electrical network, as well as lamps and electrical fittings, are calculated for operating conditions in an environment with elevated temperatures. The connection of heat and power heaters to the mains is carried out outside the dry heat chamber.

144. The fresh air inflow channel under the stove-heater of the dry heat chamber should be systematically cleaned from dust and other foreign objects.

145. If a malfunction occurs in the equipment of the dry heat chamber or signs of combustion are detected (smoke, burning smell, charring of the wooden lining of the dry heat chamber), its use is immediately stopped and the administration of the facility is informed about this.

146. The exhaust air duct from the dry heat chamber should be made separate and lead directly to the outside.

147. In the premises of saunas it is not allowed:

1) leave unattended the electric heater of the stove-heater connected to the network;

2) install handicraft heat and power heaters;

3) operate the stove with a disconnected or faulty thermostat;

4) to use electric household appliances in the sauna premises outside specially equipped places.

The order of maintenance of objects of trade

General provisions

148. Temporary storage of combustible materials, waste, packages and containers in trading floors and on evacuation routes is not allowed. They are removed daily as they accumulate. It is not allowed to store combustible containers close to the windows of buildings.

149. It is not allowed to store combustible or non-combustible goods in combustible packaging in rooms that do not have window openings or smoke exhaust shafts.

150. Storage of matches, cologne, perfumes, aerosol packages and other fire-hazardous goods shall be carried out separately from other goods in specially adapted premises.

Ammunition and pyrotechnic products are stored in metal cabinets installed in rooms fenced off with fireproof partitions. It is not allowed to place these cabinets in the basement.

151. In trade enterprises it is not allowed:

1) carry out hot work while customers are in the trading floors;

2) place watch repair points, engraving and other workshops, as well as pharmacy, newspaper, book and other kiosks on evacuation routes and stairwells;

3) install cylinders with combustible gases in trading floors for filling balloons and other purposes;

4) place trading, gaming devices and trade goods on the landings of staircases, in vestibules and other evacuation routes;

5) store more than 15,000 aerosol packages;

6) trade in flammable and combustible liquids, combustible gases (gas cylinders, paints, varnishes, solvents, household chemicals), aerosol packages, ammunition and pyrotechnic products when placed in buildings for other purposes.

152. When conducting sales, promotions and events with a mass stay of people, managers take additional measures to ensure their safety (limiting access to visitors, setting up additional attendants).

153. When placing markets in open areas or in buildings (structures), the following fire safety measures are taken:

1) sheds over the trading rows of open markets are made of non-combustible materials;

2) in covered markets, trading in stairwells, halls and corridors is not allowed;

3) the crate covering the canopy is allowed to be made of wood treated with flame retardants;

4) it is not allowed to cover open passages between the trading rows with fabrics, paper, films.

154. The placement of markets in parts of buildings for other purposes or in extensions to them is not allowed.

155. Kiosks and stalls installed in buildings and structures are made of non-combustible materials. Pavilions and kiosks intended for the sale of flammable liquids, deodorants, compressed gases are of I, II, IIIa degrees of fire resistance, separately or in a group with kiosks selling similar goods.

156. During working hours, the loading of goods and the unloading of containers are carried out along routes that are not connected with the evacuation exits of buyers.

157. It is not allowed to trade in household chemicals, varnishes, paints and other flammable and combustible liquids packaged in glass containers with a capacity of more than 1 liter each, as well as flammable goods without labels with warning labels such as “ Flammable”, “Do not spray near fire”.

Packaging of flammable goods is carried out in premises specially adapted for this purpose.

The order of maintenance of trade pavilions and kiosks

158. In the allotted territory, the installation of kiosks, as well as one-story pavilions with an area of up to 35 square meters inclusive, is carried out by groups. No more than 20 kiosks and pavilions of I, II, III, IIIa fire resistance degrees or 10 - IIIb, IV, IVa and V fire resistance degrees are placed in one group.

The distance between kiosks and pavilions in a group is not standardized.

Groups must be separated by fireproof partitions of the 1st type into compartments of 10 containers.

Footnote. Paragraph 158 as amended by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

159. The distance between the groups specified in paragraph 158 of these Rules, between separate pavilions and kiosks, as well as from groups and separate pavilions and kiosks to other buildings and structures is taken in accordance with Appendix 2 to these Rules.

Footnote. Paragraph 159 as amended by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

160. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

161. Combustible waste collection points shall be located at a distance of at least 15 meters from kiosks and pavilions.

162. Premises for storage of packaging materials and inventory are provided with an area of not more than 5 m^2 .

163. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

164. Pavilions and kiosks intended for the sale of flammable liquids and gases are made I, II, IIIa fire resistance degrees, as a rule, separately standing, or in a group with kiosks selling similar goods.

165. Heating of kiosks installed in populated areas is electric (using oil radiators, heating panels - having a certificate of conformity), steam or water.

166. In kiosks installed outside settlements, it is allowed to use stove heating in accordance with the provisions of these Rules.

167. Electric lamps with incandescent lamps are used with protective caps, and with fluorescent lamps - starterless.

168. To de-energize the electrical network of a pavilion or kiosk and a group of structures, a disconnecting device shall be installed on a non-combustible base.

169. Kiosks and pavilions shall be equipped with automatic fire alarms with sound and light output to the facade of the building or directly to the protected premises (autonomous fire detectors).

Procedure for maintenance of medical organizations

General provisions

170. The head of the medical organization daily after the end of the discharge of patients reports to the fire department data on the number of patients in each building of the institution .

171. It is not allowed to place adult patients and children with more than 25 people in frame-reed and wooden buildings.

172. Medical organizations located in rural areas are equipped with ladders, at the rate of one ladder per building.

173. Buildings of hospitals and other institutions with permanent residence of people who are unable to move independently are provided with stretchers at the rate of one stretcher for five patients (disabled people).

174. It is not allowed:

1) place in buildings with wards for patients rooms not related to the medical process or rent them out;

2) install beds in corridors, hallways and other escape routes;

3) use rubber and plastic hoses to supply oxygen from cylinders to hospital wards;

4) use faulty electrical medical equipment;

5) use irons, electric stoves and other electric heaters in hospital wards and other rooms occupied by patients.

175. The installation of boilers, water heaters and titanium, the sterilization of medical instruments, as well as the heating of paraffin and ozocerite are carried out in rooms specially adapted for this purpose. For boiling instruments and gaskets, sterilizers with closed spirals are used. The use of kerosene gas, kerosene stoves and stoves for these purposes is not allowed.

176. In laboratories, departments, doctors' offices, medicines and reagents (related to flammable and combustible liquids - alcohol, ether) are stored in special lockable metal cabinets with a total amount of not more than 3 kilograms, taking into account their compatibility.

177. Material assets in pharmacy warehouses are stored strictly according to assortments, while joint storage of flammable liquids with other materials is not allowed.

178. Joint storage of cylinders with oxygen and combustible gas, as well as storage of these cylinders in material and pharmacy warehouses, is not allowed. Cylinders with oxygen and combustible gas are stored in special rooms or under sheds and are protected from heat sources (heaters, sunlight) and oil and fatty substances on them.

The order of maintenance of physiotherapy rooms, departments of anesthesiology, resuscitation and intensive care, operating departments

179. All medical electrical devices are kept in good condition, provided with reliable grounding, factory wiring diagram and technical passport. The use of electrical wires with damaged insulation, violations in the places of clamps and connections to the equipment is not allowed.

180. Sterilizers, including those with an air gap, used in electric and phototherapy rooms, are provided only for factory production and are installed on surfaces made of non-combustible materials.

181. Heating of paraffin and ozocerite is carried out in a specially allocated room in a fume hood on factory-made heaters or a water bath. The table on which the heaters are installed is covered with a heat-resistant material. Heating of paraffin or ozocerite with an open flame is not allowed.

182. Emissions from local ventilation systems of premises from devices and installations are carried out at a height of at least 2 meters above the highest point of the roof.

183. Preventive inspection of the equipment is carried out within the time limits established by the technical passport (instruction), with the adoption of measures to eliminate the detected defects.

184. In each electrical and phototherapy department (office), logs are kept for registering fire-fighting briefings conducted with service personnel and noticed defects in the operation of electrical equipment.

185. Fire safety measures specified in Appendix 3 to these Rules are carried out in operating rooms.

186. Free transportation of patients on gurneys, through doorways and passages in operating rooms, preoperative rooms, anesthetic rooms and rooms of the operating block is provided.

187. To prevent self-ignition of narcotic drugs and preparations in operating rooms, it is necessary to drain them after work from the evaporator into a hermetically sealed container. Discharge of these liquids into the sewer, as well as the use of faulty or sparking electrical equipment during anesthesia, are not allowed.

188. The operating table, anesthesia machine and all electromedical equipment are connected to the protective bus with grounding conductors.

The procedure for maintaining laboratories of medical organizations

189. At the entrance to the premises of laboratories, signs of their categories for explosion and fire hazard are posted.

190. The supply of flammable liquids for production needs is carried out through a pipeline or special closed unbreakable containers are used for transportation. The pipeline is laid outside the building directly to the place of use of the supplied substances.

191. Flammable and combustible liquids are stored in working premises in an amount not exceeding the shift requirement, in thick-walled glass or unbreakable containers with tight stoppers, placed in a metal box lined with non-combustible material inside, with a lid. Storage of such liquids in polyethylene containers is not allowed.

192. Storage of substances and materials in laboratories is carried out strictly according to the assortment. Joint storage of substances, as a result of chemical interaction of which a fire or explosion occurs, is not allowed.

193. Laboratory furniture and equipment are installed so that they do not interfere with the evacuation of people.

194. The working surfaces of tables, racks, fume hoods designed to work with flammable, explosive liquids and substances are provided with a coating and sides made of non-combustible materials. To work with acids, alkalis and other chemically active substances, tables and cabinets are made of corrosion-resistant materials.

195. All work in the laboratory related to the possibility of releasing toxic or flammable and explosive vapors and gases is carried out only in fume hoods made of non-combustible materials, which must be kept in good condition. Do not use fume cupboards with broken glass or faulty ventilation.

During operation, the sashes, doors and dampers of fume hoods are kept as closed as possible (lowered with a small gap at the bottom for draft).

It is not allowed to carry out work in a fume hood if it contains materials and equipment that are not related to the operation being performed.

Fume hoods are equipped with a ventilation system with independent ventilation ducts.

196. The transfer of glassware with acids, alkalis and other chemically active substances is carried out only in special metal or wooden boxes lined inside with non-combustible material. For the storage of sulfuric and nitric acids, the use of wooden boxes, baskets and shavings is not allowed.

197. Storage of liquid oxygen in the same room with flammable substances, fats and oils is not allowed.

198. Cylinders with compressed, liquefied and dissolved combustible gases are installed outside the laboratory building in metal cabinets. Slots or louvres for ventilation are provided in the cabinets.

These gases, as well as oxygen, are supplied to the laboratory premises centrally.

199. Supply and exhaust ventilation in all rooms of the laboratory is turned on no later than 5 minutes before the start of work and turns off after work is completed.

200. In laboratories it is not allowed:

1) place flammable and combustible liquids, as well as combustible materials closer than 1 meter from heaters, burners and other sources of fire;

2) pour spent flammable and combustible liquids into the sewer;

3) wash floors and equipment with flammable and combustible liquids;

4) clean up accidentally spilled liquids with lit burners and switched on electric heaters;

5) leave oiled rags and paper at the workplace;

6) store substances and preparations with unknown flammable properties at the workplace and working premises;

7) leave the workplace, lit burners and heating devices unattended;

8) to heat vessels with flammable and combustible liquids in them on an open fire, as well as on household electric heaters.

201. If flammable and combustible liquids come into contact with special clothing, measures are immediately taken to replace it.

202. When working with explosive and flammable substances, as well as when working at night in a laboratory (room, box), at least two people must stay, and one of them is appointed senior.

203. Gas stoves are installed according to the project. If there is a smell of gas or other malfunctions are detected, the stoves are turned off and they are not used until the malfunctions are corrected.

204. Pipelines for the supply of flammable and combustible liquids are grounded.

205. At the end of the working day, the employee responsible for the laboratory premises checks instruments and apparatus, gas and water taps, turns off the general electric switch and ventilation, and also removes excess flammable and flammable liquids, substances, reagents, waste liquids, waste, rubbish and rags.

206. Waste liquids are poured into hermetically sealed unbreakable containers, taking into account the properties of the solvent, and at the end of the working day are removed from the working premises of the laboratory for regeneration or destruction. Storage of these liquids is subject to the provisions of these Rules.

The order of maintenance of single and multi-seat medical pressure chambers

207. The doors of the rooms of the pressure chambers are provided without glazing, self-closing, with sealed porches, without locks, as well as other locking devices, with the width of the doors of the hyperbaric oxygen chamber, allowing patients to be transported on a hospital gurney or chair, but not less than 1 meter.

208. Facing the walls of the pressure chambers, suspended ceilings are made of non-combustible materials. For painting walls and ceilings, only water-based paints are used.

209. Heating of the premises of the pressure chambers is provided by central, water heating with a coolant temperature of not more than 95 0 C. The distance from heating devices and other heat sources to the pressure chamber is provided at least 1 meter.

210. Premises in which two or more single pressure chambers or one multi-seat chamber are installed shall be equipped with emergency lighting.

211. The premises of the pressure chambers are provided with communications, automatic fire alarms and exhaust ventilation with triple air exchange.

212. Illumination of the internal volume of medical pressure chambers is carried out by lamps installed outside through translucent portholes.

213. In the room of the pressure chamber, a list of devices approved for operation in an environment with a high oxygen content is posted, indicating their passport or inventory numbers. Replacement of faulty devices is allowed only with similar ones, having appropriate marks on the possibility of their use in an environment with a high oxygen content, while the list is amended accordingly.

214. In luminaires installed directly in pressure chambers, only incandescent lamps are used.

215. The pressure chambers are provided with serviceable intercoms, while inside the chamber only a speaker and a microphone should be in metal boxes, covered with brass nets with a mesh size of 0.5x0.5 millimeters.

216. Pressure apparatuses are placed in such a way that none of them interferes with the evacuation of another pressure apparatus, any equipment of the hyperbaric oxygen chamber, as well as patients and attendants.

217. Before the start of a session or operation, all equipment of the pressure chamber, measuring and control devices, communications, signaling, fire extinguishing, and in multi-seat pressure chambers - and portable devices are subject to a thorough check. If malfunctions or malfunctions are detected, as well as in the presence of equipment that is not listed in the inventory, further sessions or operations are not allowed until the identified shortcomings are eliminated.

218. Automatic gas analyzers are installed to control the oxygen content in rooms with pressure devices.

219. Stop valves on the oxygen pipeline are installed outside the hyperbaric oxygen chamber.

220. When operating pressure devices and pressure rooms, it is not allowed:

1) place the patient in a pressure apparatus in synthetic clothing;

2) leave the patient during the session and within 30 minutes after it without medical supervision, while he is forbidden to smoke and approach an open fire;

3) allow the operation of pressure apparatuses without grounding of pressure units (pressure chamber, pressure air conditioner);

4) increase the pressure of the working environment over the permitted ones;

5) decrease in the relative humidity of oxygen in the pressure chamber below 65%;

6) bring into the pressure chamber flammable liquids, oils, substances and objects that can cause fire or sparks;

7) use faulty appliances and electrical wiring (with damaged insulation, unreliable sparking contacts), electric heaters (boilers, electric stoves), use furniture made of combustible materials, materials and objects that can cause a spark, use open fire, smoking, use open lamps for lower lighting of workplaces;

8) operate non-oil-free oxygen equipment;

9) store flammable and flammable liquids, oils, as well as combustible materials, including dressings, in the hyperbaric oxygen chamber;

10) allow an increase in the oxygen concentration in the hyperbaric oxygen chamber by more than 23 %;

11) conduct treatment sessions in the pressure apparatus in the absence of an approved act of examination of the pressure separation and the pressure apparatus;

12) connect the hyperbaric oxygen chamber-apparatus to the network with a voltage exceeding the allowable one;

13) carry out operation without the availability of primary fire extinguishing equipment.

The procedure for maintaining pharmacies and pharmacy warehouses

221. In pharmacies located in buildings for other purposes, the total amount of flammable and combustible liquids is accepted no more than 100 kilograms.

222. Separate pharmacies store no more than two oxygen cylinders, which are fixed in a vertical position in special nests and securely fastened with clamps.

223. In pharmacy warehouses it is not allowed:

1) storage in premises through which transit electric cables pass, as well as in premises with gas communications and oil-filled equipment;

2) store products in bulk and lay them close to radiators and heating pipes;

3) unpack and pack materials directly in storages;

4) enter in damp or wet clothes and shoes into warehouses where alkali metals and other substances that react with water are stored.

224. Under a shed, only those chemicals are stored that do not decompose, do not heat up or ignite from moist air or water.

225. Material assets in pharmacy warehouses are stored strictly in accordance with the assortment, while the joint storage of flammable liquids with other materials is not allowed.

226. Storage of plastic products is carried out in a ventilated, dark, dry room at room temperature, at a distance of at least 1 meter from heating systems.

227. In the event of a fire or fire in pharmacy warehouses, the heads of the relevant departments inform the fire service workers on the arrival of the presence and storage of toxic and explosive substances.

228. The transfer of cylinders with flammable and flammable liquids is carried out by two people in specially adapted cages or baskets with serviceable grip handles. Baskets with large bottles, boxes or crates (weighing more than 20 kilograms), as well as substances placed in solid containers, are moved only on special trolleys with soft wheels.

229. Flammable and explosive medicines are stored according to the principle of homogeneity and in accordance with their physico-chemical and flammable properties and the nature of the packaging.

230. Premises for storage of flammable and explosive medicines are provided with fireproof and stable racks and pallets.

231. Storage of flammable and combustible liquids is carried out in built-in fireproof cabinets with doors at least 0.7 meters wide and at least 1.2 meters high.

232. Doors from storage rooms for flammable and explosive substances open in the direction of exit from the building.

233. Flammable liquids in excess of 100 kilograms are stored in a separate building in glass or metal containers isolated from storage rooms for flammable substances of other groups.

234. In the production premises of medical organizations, flammable and combustible liquids are stored in a total amount of not more than 3 kilograms in a special metal box away from heating devices and outlets.

235. In the premises for storing flammable and explosive substances outside, as well as on the doors inside these premises, clearly visible inscriptions are posted: “Flammable”, “ Explosive”, “Smoking is prohibited”, “In case of fire, call 101 or 112”.

236. Near the entrance to each storage room for flammable and explosive substances, signs are posted with the inscription "Responsible for ensuring fire safety (full name of the responsible person)". The responsible person inspects the premises daily in order to clean up the remaining flammable and explosive substances and carry out other measures at the end of the working day.

237. Containers intended for the storage of flammable liquids are made of glass or metal, with a tight-fitting lid to prevent evaporation of liquids. It is not allowed to store flammable and combustible substances in open containers and containers made of other materials.

238. Bottles, cylinders and other large containers with flammable and combustible liquids are stored in shockproof containers or in cylinder tippers in one row. At workplaces, these substances are stored in tightly closed containers in an amount not exceeding the shift requirement.

239. It is not allowed to store flammable and combustible liquid medicines:

1) in a fully filled container. The degree of filling is provided for no more than 90 percent of the volume. Alcohols are stored in large quantities in metal containers, which fill no more than 95 percent of the volume;

2) with mineral acids (sulfuric, nitric and other acids), compressed and liquefied gases, flammable substances, as well as with inorganic salts that give explosive mixtures with organic substances (potassium chlorate, potassium permanganate).

240. Flammable and explosive drugs are stored in thick-walled tightly closed containers (bottles, cans, drums), if necessary, closures are filled with paraffin.

The procedure for the maintenance of residential and public buildings with a height of more than 28 meters

Footnote. Heading as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

241. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

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254. In buildings with a height of more than 28 meters, it is not allowed:

1) build up, clutter up with various equipment, vehicles, sites intended for installation in the event of a fire of ladders or articulated lifts;

2) de-energize the system control panel after acceptance of the smoke protection system;

3) operate the newly constructed building until the fire protection systems are adjusted;

4) arrange doorways in blank partitions and walls separating smoke-free staircases from rooms, passages, basements;

5) excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

6) paint, whitewash automatic fire detectors and sprinklers;

7) excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication);

8) finish the fences of balconies and loggias with combustible materials;

9) excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication);

10) is excluded by the Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

Footnote. Clause 1 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

The procedure for maintaining social service facilities

255. Storage (warehousing) of substances and materials is carried out taking into account the compatibility of their storage, as well as the uniformity of extinguishing agents.

256. All rooms in the buildings are kept clean. Baskets and drawers for papers and other combustible waste are cleaned regularly.

257. In social service organizations it is not allowed to use furniture and equipment made using polymeric materials capable of releasing highly toxic products during combustion.

258. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

259. It is not allowed to use open fire and incandescent objects for warming water pipes, sewer pipes and heating systems inside buildings.

260. It is not allowed to install and use household electrical appliances (refrigerators, microwave ovens, electric heaters, electric kettles) in the office premises of social service organizations.

261. Cooking (warming up) of food is carried out only in places specially designated and equipped for these purposes. At the same time, it is not allowed to use electric heaters for domestic needs without means of automatic shutdown.

262. It is not allowed to use kerosene lamps and candles for lighting premises.

263. Electric heaters, table lamps, radios, televisions, refrigerators, vacuum cleaners are connected to the network only through serviceable sockets.

264. It is not allowed to use irons, electric stoves and other electric heaters in bedrooms, playrooms and other premises occupied by serviced persons.

265. Clothes are ironed only in rooms specially equipped for this purpose. Ironing is carried out with irons with serviceable thermostats and indicator lights. Irons are installed on stands made of non-combustible materials.

266. After the end of work, all electrical installations are turned off, with the exception of emergency lighting, power supplies for automatic fire extinguishing installations, alarm and smoke removal systems, as well as electrical installations that, according to the conditions of the technological process, work around the clock.

267. Service personnel are on duty around the clock in social security institutions. The duty officer must always carry a set of keys for all locks on the doors of emergency exits. Another set of keys is kept in the duty room. Each key in both sets is signed about its belonging to the corresponding lock.

268. Night attendants are located in the premises where the telephone is installed, and are provided with hand-held electric lights. The installation of beds in corridors, halls and other escape routes is not allowed.

The procedure for the maintenance of places of worship

269. Candlesticks, lamps and lighting equipment using open flames shall be installed on non-combustible bases.

270. It is not allowed to use sources of open fire for conducting services and ceremonies at a distance of less than:

1) 0.7 meters from horizontal enclosing structures made of materials with flammability group C1-C4.

2) 0.5 meters from vertical enclosing structures made of materials with flammability group C1-C4.

3) 0.5 meters away from other combustible materials.

271. It is not allowed to operate luminaires that are not factory-made and without a manufacturer's passport.

272. It is not allowed to use open flame lamps with damaged glass flasks, and also to use flammable liquids when filling them.

273. Storage of flammable liquids for refilling lamps, lamps and similar devices is carried out in closed unbreakable containers in metal cabinets with a capacity of not more than 2 liters.

274. Pouring of flammable liquids into lamps and lamps is carried out from an unbreakable container on a pallet made of non-combustible material, the design of which provides for bumpers. After filling the lamps and lamps, the tray and the outer surface of the container are cleaned of the remnants of the spilled flammable liquid using non-flammable technical detergents.

275. Bottling of combustible liquid into lamps and lamps is carried out only in the absence of sources of ignition, and when electric heaters are turned on at a distance of at least 1 meter from them.

276. The firing of stoves ends no later than two hours before the start of services and ceremonies.

277. It is not allowed to carry out hot work in religious buildings (furnace furnaces, welding work and other types of hot work), pouring flammable liquid during services and ceremonies.

278. Escape routes are kept clear and unobstructed.

279. During the period of services and rituals, it is not allowed to close emergency exits with locks and other locking devices.

280. The capacity of prayer halls is limited based on the floor space per person and the capacity of evacuation routes.

281. The movement of parishioners is organized in such a way that crossing and oncoming flows are excluded.

282. Signs of evacuation exits from places of worship and premises with a mass stay of people are kept in good condition and switched on for the duration of services and ceremonies

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283. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

284. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

285. At telephone sets, signs are posted in prominent places indicating the telephone number of the nearest fire department, as well as telephone numbers "101" and "112".

286. Excluded by Decree of the Government of the Republic of Kazakhstan dated December 13, 2019 No. 921 (shall be enforced ten calendar days after the day of its first official publication).

The procedure for the maintenance of institutions of the penitentiary system and temporary detention centers

287. On the territory of institutions of the penitentiary system, fire shields are equipped with:

1) in a residential area near the duty unit in a place inaccessible to convicts or in a place to which convicts have limited access;

2) in the industrial area in each production building;

3) in the boiler room, on the territory of the utility yard;

4) in a punishment cell (disciplinary unit);

5) at a transport checkpoint (control site, gateway).

In places accessible to convicts and remand prisoners, fire shields are not equipped with an ax, hook, shovel, crowbar and other piercing and cutting and chopping objects.

288. In dormitories for the maintenance of convicts, industrial and other premises where free movement of convicts is possible, fire hydrants and fire extinguishers are equipped (installed) in cabinets protected from unauthorized opening. In the cells of institutions of the penitentiary system (hereinafter referred to as the PS) and temporary detention facilities (hereinafter referred to as the TDF), primary fire extinguishing equipment is not installed.

289. The fencing of the production, economic and residential areas of the institutions of the PS and the fencing of the TDFs are equipped with gates for the passage of fire trucks.

290. In the absence of a fire water supply network or natural water sources on the territory of penitentiary institutions and temporary detention facilities, it is necessary to provide for the installation of fire reservoirs with a capacity calculated for the required flow rate of external fire fighting water supply in accordance with the technical regulation "General requirements for fire safety", approved by the Decree of the Government of the Republic of Kazakhstan dated 16 January 2009 No. 14 (hereinafter referred to as the technical regulation "General requirements for fire safety"). If there are natural water sources within a radius of 200 m from the object, an entrance should be arranged to them with platforms (piers) with a hard surface measuring at least 12 m x 12 m for the installation of fire trucks and water intake at any time of the year.

291. In the basement, basement and attic premises of buildings, structures and premises of the residential area, as well as the medical unit, it is not allowed to place workshops, storage, service, residential and amenity premises (including those intended for the performance of religious rites). In residential and disciplinary blocks, blocks of premises for long-term visits, it is not allowed to provide for various types of production and storage premises in which explosive, flammable substances and materials are used or stored.

292. When arranging premises for the performance of religious rites in residential and disciplinary blocks, these premises must be separated by type 1 fire partitions and equipped with at least two dispersed evacuation exits. Non-combustible bases should be provided for the installation of candlesticks, lamps and other devices with open fire.

293. Doors of evacuation exits from buildings and premises with a permanent presence of people, with the exception of holding cells of investigative and arrested and convicted institutions of the PS, suspected and accused TDFs, must be able to be opened from the inside without a key and be equipped with a security alarm that is triggered by unauthorized opening of the door with a signal output to the duty department.

3. The order of maintenance of industrial enterprises

General provisions

294. Each enterprise must have data on the fire hazard indicators of substances and materials used in technological processes, and for buildings and premises, categories for explosion and fire hazard are determined in accordance with the technical regulation "General requirements for fire safety".

When working with flammable and explosive substances and materials, the requirements of marking and warning labels on packages or specified in accompanying documents are observed.

295. Joint use (unless it is provided for by the technological regulations), storage and transportation of substances and materials that, when interacting with each other, cause ignition, explosion or form combustible and toxic gases (mixtures), is not allowed.

296. Scheduled preventive maintenance and preventive inspection of equipment are carried out on time and with the implementation of fire safety measures provided for by the project and facility (workshop) instructions.

297. The design of exhaust devices (cabinets, painting, drying chambers), devices and pipelines is provided for preventing the accumulation of fire hazardous deposits and ensuring the possibility of their cleaning by fire safe methods. Cleaning works are carried out according to the schedule approved by the head of the enterprise.

298. Spark arresters, spark arresters, fire-retarding, fire-blocking, dust and metal trapping and anti-explosion devices of the static electricity protection system installed on process equipment, pipelines and other places are kept in working condition.

299. For washing and degreasing equipment, products and parts, non-combustible technical detergents, as well as fire-safe installations and methods, are used.

300. Heating of a frozen product, ice, crystal hydrate and other plugs in pipelines is carried out with hot water, steam and other safe methods. The use of open fire for these purposes is not allowed.

301. Sampling of flammable and combustible liquids from tanks (containers) and level measurement are carried out during daylight hours with devices that exclude sparking during impacts. It is not allowed to perform these operations during a thunderstorm, as well as during the pumping or pumping out of the product.

It is not allowed to supply such liquids to the tanks (containers) by a "falling water sheet". The rate of filling and emptying the tank cannot exceed the total capacity of the breathing valves (vent pipes) installed on the tanks.

302. Doors and hatches of dust collection chambers and cyclones should be kept closed during their operation. Combustible waste collected in chambers and cyclones is removed in a timely manner.

303. The use of industrial buildings, warehouses on the territory of enterprises for living, as well as the placement of industrial workshops in warehouses is not allowed.

304. In pedestrian tunnels and crossings, it is prohibited to arrange pantries, store equipment, combustible materials, hang stands and posters made of combustible materials, and also it is not allowed to lay power cables, pipelines transporting gases, acids, flammable and combustible liquids.

305. The boundaries of driveways and aisles in the workshops are clearly marked.

306. Transit power networks, as well as pipelines for the transportation of combustible gases, flammable and combustible liquids and combustible dusts, should not be laid through warehouses and industrial premises.

307. In explosion-hazardous areas, workshops and premises, tools made of non-sparking materials or in an appropriate explosion-proof design are used.

308. Walls, ceilings, floors, structures and equipment of premises where there are emissions of combustible dust, shavings are systematically removed. The frequency of cleaning is established by technological regulations or object (workshop) instructions (written). Cleaning is carried out by methods that exclude the swirling of dust and the formation of explosive dust-air mixtures.

309. The supply of flammable and combustible liquids, combustible gases to workplaces is carried out centrally. It is allowed to deliver a small amount of flammable and combustible liquids to the workplace in a special, safe container.

The use of open containers is not allowed. For workshop pantries, the maximum allowable amounts of one-time storage of flammable and combustible liquids, paints, varnishes and solvents are normatively established. Workplaces store only such amount of materials (in a form ready for use) that does not exceed the shift requirement. In this case, the containers must be tightly closed.

310. Technological openings in fire walls and ceilings are protected by fire-blocking devices.

311. Loading devices of mine elevators for bulk transportation of semi-finished products are equipped with dampers that open only for the period of loading.

312. Mechanisms for self-closing fire doors are kept in good condition. Fire protection devices are closed at the end of the working day.

313. Protective membranes of explosive safety valves on lines and adsorbers by type of material and thickness are adopted in accordance with design decisions.

314. The serviceability of fire arresters is regularly checked and their fire extinguishing nozzle is cleaned, as well as the serviceability of membrane valves. The timing of the inspection is indicated in the approved workshop instructions.

315. To exclude the possibility of spontaneous combustion of the existing activated carbon, adsorbers are filled only with standard, established brand of activated carbon.

316. In hydraulic systems using a flammable liquid, control is established over the oil level in the tank and it is not allowed to exceed the oil pressure in the system above that specified in the passport.

If oil leaks from hydraulic systems are detected, the leak is immediately eliminated.

317. It is not allowed to operate sawmill frames, circular saws, milling saws and other machines and units when:

1) touching the saws on the fence;

2) use of saws with insufficient or uneven flattening (divorce) of teeth and large burrs;

3) damage to lubrication and cooling systems;

4) faulty cooling and lubrication systems and no devices that provide automatic stop of the saw frame when the pressure in the cooling system is lower than the passport one;

5) misalignment of the saw frame, loosening and improper fitting of sliders;

6) heating of bearings over $70\ ^{0}$ C.

318. Conveyors supplying raw materials to the chipper are equipped with metal traps that automatically turn off the conveyors and give an audible signal in case of metal objects.

319. It is not allowed to use metal objects for cleaning the feed funnel of the chipper.

320. Technological chips entering for processing, as well as a chip mat, are passed through metal traps before entering the press.

321. Metal detectors equipped with alarms and interlocked with feeders are installed in front of particle board grinders.

322. Hoppers of crushed wood particles and forming machines are equipped with an aspiration system that maintains a vacuum in the tank, and are equipped with sensors that signal when they are full.

323. Above the press for hot pressing, loading and unloading racks, an exhaust hood is equipped to prevent the release of dust and gas into the room during the closing and opening of the plates.

324. The drum dryer and dry chip and dust bins shall be equipped with automatic fire extinguishing installations and anti-explosion devices.

325. Systems for transporting chip and dust materials are equipped with devices that prevent the spread of fire and hatches to eliminate fires.

326. Tanks for collecting wood and other explosive dust from aspiration and pneumatic transport systems are equipped with anti-explosion devices that are in working order.

327. At least once a day, chambers for heat treatment of slabs are cleaned of residues of volatile tar emissions and products of wood pyrolysis, dust and other waste.

To remove explosive gases from the thermal treatment chambers of particle boards, it is necessary to have an automatic device for opening the exhaust pipe damper for 2-3 minutes every 15 minutes.

Heat treatment of underpressed boards with loose edges is not allowed.

328. Slabs before laying in stacks after heat treatment are cooled in open buffer areas to ambient temperature to prevent their spontaneous combustion.

329. The temperature in the processing chambers and oil baths is subject to automatic control.

330. Drying drums using flue gases are equipped with spark arrestors.

331. Cutting wood-laminated plastics and cutting them into pieces after pressing is allowed no earlier than the time established by the technological regulations.

332. After completion of work, impregnating baths, as well as baths with flammable cooling liquid, are closed with lids.

333. Impregnation, hardening and other flammable liquid baths shall be equipped with emergency drain devices into underground tanks located outside the building.

Each bath is equipped with a local suction of combustible vapors.

334. Drying chambers of periodic action and heaters are cleaned from industrial waste and dust before each load.

335. Supply and exhaust channels of steam-air and gas chambers are equipped with special dampers (gates) that close in the event of a fire.

336. Gas drying chambers shall be equipped with serviceable devices that automatically stop the flow of flue gases in the event of a ventilation stoppage.

Spark arresters are installed in front of the gas drying chambers to prevent sparks from entering the drying chambers.

The technical condition of hogs, spark arresters and devices of gas dryers is regularly checked. The operation of dryers with cracks on the surface of the burs and inoperative spark traps is not allowed.

337. Furnace and gas devices of gas drying chambers operating on solid and liquid fuels are cleaned of soot at least twice a month.

338. The furnace-drying department is equipped with serviceable devices for controlling the temperature of the drying agent.

339. Drying chambers for soft fiber boards are cleaned of wood waste at least once a day.

If the conveyor stops for more than 10 minutes, the heating of the drying chamber stops.

Drying chambers are equipped with devices that turn off the fans of the heaters in the event of a fire in the chamber and include stationary fire extinguishing equipment.

340. Drying chambers (rooms, cabinets) for raw materials, semi-finished products and painted finished products are equipped with automatic heating shutdown when the temperature exceeds the allowable one.

341. Before laying wood in piles for drying with high-frequency currents, make sure that there are no metal objects in it.

342. Stay of people and drying of special clothes in drying chambers is not allowed.

Procedure for maintenance of facilities of sinter production and production of metallized pellets

Footnote. Heading as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

343. Storage of quicklime is carried out in special rooms not lower than II degree of fire resistance, the floor of which provides for a distance above the ground of at least 0.5 meters.

344. Places of storage of metallized pellets are reliably protected from moisture ingress.

Footnote. Clause 344 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

345. Metallized pellets that meet quality requirements are unloaded from a bunker equipped with a dry inert gas supply system. The excess pressure in the hopper must be at least 200 Pascal (20 millimeters of water column).

346. Pellets at a temperature of more than 100 ^{0} C are dumped by a special device onto the site. In this case, it is recommended to supply water to the tape.

347. Pellets dumped onto the site are stacked with the help of loaders with a layer of no more than 0.5 meters and watered abundantly.

348. It is not allowed:

1) storage of quicklime in damp rooms together with damp and combustible materials;

2) the use of water for the destruction of sintered lime;

3) supply of hot sinter with a temperature exceeding 100 ^{0} C (which is controlled by the administration);

4) the use of conveyor belts made of combustible materials (rubber-bitumen, synthetic);

5) transportation of wet pellets to the warehouse;

6) accumulation of metallized dust in the galleries of transport, places of screening, crushing, reloading and unloading of pellets with a layer of more than 5 millimeters.

The order of maintenance of objects of blast-furnace, steel-smelting, electric steel-smelting and ferroalloy production

349. The condition and serviceability of the lining of blast furnaces, steel-smelting furnaces, converters, mixers, ladles and other containers for molten metal will be checked.

350. When producing pig iron, slag and pouring steel, ferroalloys, it is not allowed to use ladles, molds and other containers with water or wet material. Pouring sites should be freed from combustible materials not provided for by the technological regulations.

351. Control panels for pouring machines, cabs for filling machines, control stations for continuous casting of steel and other control panels located in close proximity to the place where molten metal and slag are discharged shall be made of non-combustible material, protected by a metal mesh, glazed with heat-absorbing glass and containing at least two exits.

352. Entrances to cable tunnels, oil cellars located in the immediate vicinity of the spill sites, as well as at the places of transportation of molten metal, are protected from the ingress of molten metal by fire-resistant thresholds not less than 300 millimeters high.

353. Cables of electromechanisms, electrical equipment and hydraulic drive devices at the places of spilling metal, slag and in other areas of elevated temperatures are protected from mechanical damage, exposure to radiant heat, as well as splashes of molten metal and slag on them.

Procedure for maintenance of blast-furnace production facilities

354. The top platform and the platform for research work are provided with two exits.

355. Steam or an inert gas is supplied to the interbell space in quantities that exclude the formation of explosive mixtures.

356. The supply of steam or inert gas to the inter-cone space is blocked with the loading device in such a way that without the supply of steam (inert gas), the loading mechanisms do not work.

357. Blast furnaces shall be equipped with casing temperature control devices over the entire height and area of the furnace. The readings of the sensors are recorded by devices on the furnace control panel.

358. Storage of materials and production waste near the foundations of blast furnaces is not allowed. Foundations are regularly cleared of debris.

359. To control burnout, air lances are equipped with signaling devices. Work on burnt-out tuyere tools is not allowed.

360. The casing of the furnace in places where there are burned-out refrigerators is cooled from the outside with water.

361. The condition of the cooling systems of blast furnaces and auxiliary devices is checked every shift, followed by recording the results of the checks in a special log.

362. The temperature of pulverized coal fuel in the upper part of the bunker is controlled by instrumentation with recorders and with the supply of sound and light signals in case of spontaneous combustion in the bunker.

363. The design of dust pipelines and the speed of movement of the pulverized-coal aero mixture must exclude the possibility of dust deposits in them. The dust piping system of the plant is sealed.

364. Injection of pulverized fuel and fuel oil into a blast furnace with faulty cut-off and stop valves, regulating equipment and faulty instrumentation is not allowed.

365. The location of collectors of pulverized-coal aeromixture and fuel oil on the working platform of the furnace, as well as the installation of shut-off and control valves in front of tuyeres, tapholes and above the tapholes is not allowed.

366. Roofs and sheds of foundry yards are regularly cleaned of dust.

367. Stopping of locomotives under dust collectors and near them during dust removal is not allowed.

The procedure for the maintenance of steelmaking facilities

368. The state of the open-hearth furnace bath is constantly monitored. If signs of a possible metal breakthrough are found, measures are taken to prevent its leakage.

369. Storage of any type of equipment and warehousing of materials (including combustible) in places where molten metal and slag can get in is not allowed.

370. It is not allowed to place service tanks with fuel oil under the furnaces, the tanks are located at a distance of at least 5 meters from the furnaces and are reliably protected by special heat shields.

371. To drain fuel oil in the event of a fire, service tanks are connected by closed drain and overflow pipelines to emergency tanks.

372. A shut-off valve is installed at the entry of the fuel oil pipeline into the workshop in a place accessible for maintenance.

373. The use of mechanisms for turning the converter with a hydraulic drive is not allowed.

374. Operation of the converter in the presence of leakage of converter gases in the cooler is not allowed. Water cooling of hot places on the casing of the converter with molten metal is not allowed.

375. Flammable liquids shall not be used to ignite gas during drying of steel-smelting furnaces, converters, mixers.

Footnote. Clause 375 as amended by Decree of the Government of the Republic of Kazakhstan dated December 29, 2017 No. 919 (shall be enforced ten calendar days after the day of its first official publication).

376. Pouring of steel on a continuous casting machine on a faulty mold and in case of violation of the casting technology is not allowed.

377. In places of storage, preparation and preparation of fire and explosion hazardous materials and mixtures based on them, the use of open fire is not allowed.

378. Dry grinding of explosive materials is carried out in a protective atmosphere with the automatic stop of grinding facilities and the achievement of a working concentration equal to 50 % of the minimum explosive oxygen content.

The preparation of a mixture based on explosive materials to prevent the formation of explosive air suspensions is carried out using phlegmatization or a protective environment.

379. Joint transportation and storage of aluminum-magnesium, aluminum-barium and aluminum powders with saltpeter, acids, alkalis and oxidizing agents, as well as combustible materials, is not allowed.

380. Injection of fire and explosion hazardous powders into liquid metal is carried out only under conditions that exclude the ingress of combustible powders into the gas duct.

381. It is not allowed to place a bunker with flammable charge materials under charge crane trolleys.

382. Molds are lubricated only after they have cooled to a temperature below the flash point of the lubricant used.

The order of maintenance of objects of electric steelmaking and ferroalloy production

383. The frequency of dust collection is regulated by an instruction approved by the head of the enterprise. Accumulation of dust on the conductors of a short network is not allowed.

384. During the operation of furnace transformers to prevent fires in the event of increased heating of transformers and accelerated wear of its insulation:

1) temperature and load conditions, voltage levels are observed;

2) are kept in good condition cooling device, voltage regulation, oil protection.

385. Furnace transformers are provided with fire extinguishing equipment and emergency oil receivers designed for the full volume of oil in the transformer.

386. Drying of transformers is carried out in special rooms (chambers) separated from the main premises with independent access to the outside.

387. Vacuum chambers of induction and vacuum arc furnaces, as well as melting chambers of electron beam furnaces, are equipped with explosive safety valves.

The design of safety valves ensures their safe and reliable operation.

388. The procedure for supplying air to vacuum chambers with flammable condensate for the purpose of their inspection, repair, and dust removal is regulated by instructions approved by the head of the enterprise.

389. The removal of flammable condensate from the walls of the melting chamber is carried out in a safe way.

Until the complete removal of flammable condensate, the access of service personnel to the inside of the vacuum chamber for the purpose of carrying out repair work, inspecting the chamber is not allowed.

390. Operation of a system for removing dust and gas emissions from electric steel-smelting and ore-reducing furnaces that is not equipped with devices that prevent fires, explosions of gases and dust is not allowed.

391. Bunkers, chambers for spraying liquid aluminum are equipped with gates that prevent hot powder from getting onto the conveyor belt during the spraying process.

392. During the operation of the equipment in the premises for the production of aluminum powder, the possibility of sparking is excluded. The floors in these rooms are made of materials that do not form sparks upon impact, friction.

393. When working with aluminum powder, tools and containers made of wood or non-ferrous metals are used, which exclude sparking.

394. In order to avoid oxidation, spontaneous combustion and explosion of aluminum powder, the presence of moisture and dampness in the places of its production and storage is not allowed.

395. In rooms for the production of powders and powders from aluminum, magnesium and alloys based on them, it is not allowed to arrange cellars, underground channels and pits.

396. Technological equipment of rooms for the production of combustible powders and powders, as well as pipelines, are protected from static electricity.

397. Joint storage and transportation of aluminum-barium and aluminum powders with saltpeter, acids, alkalis and other oxidizers and combustible substances is not allowed.

398. Flammable materials or materials that promote rapid ignition (magnesium shavings and magnesium alloys, saltpeter, potash chlorate, thermite mixture) are stored in specially designated areas of the melting building of metal-thermal shops in closed metal containers (cans, barrels) in an amount not exceeding a two-day requirement . Long-term storage of these materials at the enterprise is organized in separate warehouses.

399. It is not allowed to conduct melting with the ejection of molten metal and slag. In the event of a release, measures are taken to limit the zone of ingress of hot melt products. Do not store combustible materials in this area.

400. When crushing ferroalloys, the dust of which has pyrophoric properties and is explosive or flammable in suspension, measures are taken to remove dust from crushing units , as well as timely and regular cleaning of units and aspiration plants from it.

401. Grinding of explosive ferroalloys without the use of an inert gas medium or inert additives is not allowed. In technological processes (grinding, transportation) using explosive powders, equipment is used that excludes the occurrence of an explosion as a result of thermal, spark or mechanical effects.

402. Silicocalcium, ferrosilicon and combustible solid materials that emit explosive gases when interacting with water are packed in dry and clean iron drums, which provide openings for the release of gases in the top cover. These openings are protected from moisture.

403. Transportation of crushed explosive components by pneumatic types of pipeline transport is carried out in an inert gas environment.

404. Bunkers for the storage of spontaneously combustible materials shall be equipped with devices for controlling the temperature of these materials, the operation of which is interlocked with the launch of fire extinguishing equipment.

405. Grinding of wet ferroalloys capable of releasing explosive gases when interacting with water, as well as transportation and storage of wet powders of such ferroalloys, is not allowed.

406. Dust settling chambers and bag filters are periodically freed from dust.

407. Cleaning of combustible dust from floors and equipment in the premises of bunkers, conveyor galleries are carried out every shift, and from walls, ceilings and metal structures - once a week.

408. With an increase in the amount of dust emissions into production premises as a result of a violation of the technological process and regulated modes of equipment operation, dust collection is carried out according to a special schedule approved by the head of the enterprise .

409. An entry is made in a special log about the dust removal.

410. It is not allowed to take out waste from the production of combustible powders and powders to the dump. They should be used in production or burned (neutralized) in designated areas.

411. It is not allowed to use materials containing moisture, oil, emulsions and other organic substances, as well as titanium shavings for the preparation of a mono-charge.

Maintenance of rolling, pipe-rolling and hardware production facilities

412. Oil pipelines of control and centralized lubrication systems must be made of non-combustible materials.

413. Hydraulic drive systems shall be equipped with a device for automatic shutdown of pressure valves in the event of an oil line break.

414. During the operation of lubrication and hydraulic systems, oil leakage shall be excluded. Oily places must be cleaned every shift with sawdust and rags.

415. When vegetable oils and animal fats are used in the lubrication system, measures shall be taken to exclude the possibility of spontaneous ignition of textile or fibrous materials moistened with these products.

416. When operating an oil facility, the use of any source of open fire, sparking in oil cellars and near oil-filled equipment must be excluded.

417. Oil cellars and cable tunnels shall be kept closed to exclude scale, sparks and other ignition sources from work sites penetrating them.

418. In the event of a fire, automatic shutdown of ventilation devices in tunnels and oil cellars must be ensured.

419. In the event of a fire, baths for bearing assemblies depreservation, as well as service tanks for fuel oil, must be provided with emergency containers for draining flammable liquids , which are placed outside the workshop building.

420. In areas with the use of protective explosive gases, process automation instrumentation preventing formation of explosive concentrations shall be kept in good condition.

421. Automation is duplicated by an inert gas starting device, with the designation of a manual start valve.

422. Operation of protective gas heat treatment units is not allowed when the pressure of the protective medium drops.

423. In annealing compartments, in the hydrogen release areas, electrical equipment and ventilation systems shall be explosion-proof in accordance with the electrical installation Rules.

424. During heat treatment of metal (continuous annealing of the tape), the use of molten sodium bath without protective gas is not allowed. Ingress of water or wet materials into the sodium bath is inadmissible.

425. Machine processing (cutting) of pipes made of titanium and its alloys is allowed with the use of a cooling emulsion in the cutting zone.

426. During heat treatment of pipes made of titanium alloys, the possibility of contact with iron scale shall be excluded. The use of nitrate baths in the production of such pipes is not allowed.

427. It is not allowed to store sawdust, shavings and other wastes of titanium and its alloys at workplaces. Containers marked "Titanium Waste" must be stored in a specially designated dry room with permanent ventilation. Storage of flammable liquids, chemicals and other combustible materials in this room is not allowed.

428. Heating of coated hardware to temperatures exceeding self-ignition temperature of the anti-corrosion coating is not allowed.

Maintenance of refractory production facilities

429. Heating of the mixture and dissolution of paraffin, stearin in kerosene must be carried out in a water bath. The use for these purposes of open fire, open electric coils or other surfaces with temperatures above 100 °C is not allowed.

430. At the sites of the preparation and use of a kerosene-stearin mixture, work is not allowed without the presence of fire extinguishers.

431. Spilling of kerosene-stearin mixture and collection of waste kerosene-stearin mixture at workplaces during the pressing of products are not allowed.

432. Combustible (explosive) gases may not be used as fuel and reducing medium.

Maintenance of workshops, sites, installations for painting, cleaning, degreasing and washing

433. Washing of parts, as well as painting, varnishing with the use of nitro- based coatings , gasoline and other flammable liquids shall be carried out in separate premises or at separate production sites provided with effective fire extinguishing equipment and evacuation route signs.

434. Paint preparation departments of paint shops (sites) shall be provided with independent exit to the outside.

435. Floors in rooms where paint-and-varnish preparatory, painting and petrol-washing works are performed shall be made of non-combustible materials that do not cause sparks upon impact.

436. The inner surfaces of the walls of premises at the height of at least two meters must be lined with non-combustible, easily cleaned material.

437. All doors of the workshop, site, installations must open outwards or towards the nearest exits from the building.

438. Painting work, washing of parts shall be carried out only with active inlet and exhaust ventilation with local suction from paint cabinets, bathtubs, chambers and booths. Operation of installations, as well as supply system for painting, cleaning, varnishing, washing and degreasing operation with the use of nitro-based coatings, gasoline and flammable liquids, shall be blocked with ventilation system.

439. Exhaust ventilation of painting cabinets, chambers and booths may not be used without water sprinklers (hydraulic filters) or other effective devices for trapping particles of combustible paints and varnishes.

440. Laying supply and exhaust ventilation channels under the floor is not allowed, with the exception of channels for tubeless painting installations on grates in the floor with mandatory cleaning of the exhaust air in hydraulic filters placed at the channel entrance.

The pit under the grate must be filled with at least 0.5 meters high water layer with constant level kept up automatically.

441. Fixtures for painting and paint preparation departments (painting and drying booths) made of non-combustible materials shall be used. Electrical fixtures at the sites with the use of flammable liquids for painting, varnishing, enameling of products, washing, degreasing must be explosion-proof in accordance with the electrical installation Rules.

442. Paints and varnishes must be poured into working vessels on metal trays made of non-ferrous metals with sides.

443. After the end of the shift, the painting utensils shall be daily cleaned of combustible deposits with the ventilation running.

444. To facilitate the cleaning of chambers from paint and varnish deposits, their walls must be covered with a thin layer of technical vaseline, solidol or a special composition. When cleaning the surface from nitro-paint deposits, impacts on metal structures are not allowed, as well as the use of scrapers made of non-ferrous metal.

445. The use of fire to burn out paint deposits in cabins and air ducts is not allowed.

446. The use of paints and varnishes, solvents, washing and degreasing liquids with unspecified fire hazard indicators is forbidden. These materials may be used only after appropriate tests, determination of their flammable properties and development of measures for a safe use.

447. Non-combustible compositions, pastes, solvents and fire-safe technical detergents shall be used for washing and degreasing of products and parts.

448. Cleaning of the rolls from dirt after their removal from the crates is carried out in a closed mechanized washing chamber.

449. Ingress of coal, soot, lubricants onto the alkaline tank surface is not allowed in order to avoid an explosion.

450. Storage of caustic soda, saltpeter, additives is allowed in a specially equipped room.

451. Acid storage sites must be provided with ready-made solutions of chalk, lime or soda for immediate neutralization of accidentally spilled acids.

452. In painting workshops, paint preparation departments, paint and varnish warehouses, places for washing and degreasing of parts using flammable and combustible liquids, it is not allowed to perform work connected with the use of open fire and sparking (electric welding, sharpening), also to use tools made of sparking materials.

453. Paints and varnishes shall be delivered to workplaces in finished form. Compounding and dilution of all types of varnishes and paints shall be carried out in a specially allocated isolated room that meets all fire safety requirements, or at an open site.

454. For electric painting of products with nitrocellulose, polyester and perchlorovinyl enamels, the electric painting chamber shall be equipped with non-sparking appliances.

455. In spray booths with an electrostatic field, when the exhaust ventilation is turned off, the voltage is automatically removed from the electrostatic field formation unit.

456. Paints and solvents spilled on the floor must be immediately removed. Floors, walls and equipment may not be washed with flammable solvents.

457. Painted products that, due to technological conditions or due to large dimensions of the products cannot be dried in exhaust chambers or cabinets, must be dried at a site with available ventilation and automatic fire extinguishing appliances.

458. Paints and varnishes containers must be tightly closed and stored in special areas located at a distance of at least 20 meters from buildings and structures.

459. Racks for laying pipes and other products after oiling shall be equipped with devices for draining and removal of oil with its subsequent pumping out.

460. The supply of pipes to the oiling chamber is blocked with the start-up of exhaust ventilation units. The ventilation unit is turned on ahead of time, and turned off after the chamber stops.

4. Maintenance of oil products supply facilities

General provisions

461. The territory of oil depots, loading and pumping stations must be fenced with at least 2 meters high fence made of non-combustible material.

462. Planting of broad-leaf trees and shrubs, also laying out lawns, is allowed on free areas of the facility's territory. Planting of trees and shrubs in the embankment of tanks is not allowed.

463. On the territory of the facility it is not allowed to make fires, burn garbage, waste, use torches, kerosene lanterns, and other sources of open fire.

464. Vehicles can pass through the territory of the facility in accordance with the approved traffic pattern.

465. Excluded by Resolution No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall be enforced ten calendar days after the date of its first official publication).

466. At oil depots and oil and oil products pumping stations, a stock of fire equipment (in addition to that available on fire trucks) shall be created in the quantities specified in Appendix 4 to these Rules. The technical condition of fire extinguishing appliances shall be constantly monitored. It is not allowed to use fire appliances and inventory for other purposes.

467. Warming up of a frozen oil product, ice and crystalline plugs in pipelines is carried out with hot water, steam, heated sand and by other non-flammable methods.

468. Work in fire and explosion hazardous areas must be performed by a tool that excludes sparking. When using copper-plated keys and tools, control over the integrity of the copper coating and its timely restoration shall be ensured.

469. Samplers made of materials that do not produce sparks on impact and are equipped with a grounding conductor shall be used to avoid formation of static electricity charges. The ground conductors are connected to the ground terminals on the tank roof.

470. During the operation of the pontoons of tanks, the serviceable condition of flexible jumpers (down conductors) shall be ensured to protect the pontoon from static electricity.

Cleaning of tanks from spontaneously igniting pyrophoric deposits

471. Cleaning of the inner surface of tanks from pyrophoric deposits and corrosion products shall be carried out regularly according to the schedule approved by the head of the facility.

472. Before repairing and cleaning of the tank from pyrophoric deposits (after emptying it of oil products), the air space is filled with water vapor. Steam purging is carried out with the lower hatch closed and the light and gauging hatches open. In the presence of a dosing device, in the process of steaming the tank, a small amount of air is introduced into it (at the rate of up to 6% oxygen in the vapor-air mixture) for slow oxidation of pyrophoric deposits. In the

absence of dosing devices, at the end of steaming, the tank is filled with water to the upper level, after which, for the slow oxidation of pyrophoric deposits, the water level must be decreased at the rate of no more than 0.5-1 meters/hour.

473. Impurities and deposits removed from the tank during tank cleaning must be kept moist until they are removed from the oil storage area.

474. Samples of pyrophoric deposits from tanks shall be taken only with the permission of the head of the facility by specially trained persons.

Maintenance of electrical devices, automation and communications equipment

475. The territory of the facilities shall be provided with outdoor lighting, turned on from manned areas.

476. The following shall be forbidden:

1) operation in explosion hazardous zones of electrical equipment without an explosion protection sign affixed by the manufacturer;

2) operation of explosion-proof electrical equipment with a broken protection system;

3) change in the design of explosion-proof electrical equipment;

4) laying of power lines over the territory of explosive and fire hazardous zones and at a distance of less than 1.5 of the height of the support of power lines from these zones;

5) use of hose cables with a damaged sheath (punctures, cuts, joints);

6) the use as grounding conductors and grounding wiring of process pipelines containing combustible gases, liquids, as well as pipelines covered with insulation to protect against corrosion.

477. For protective grounding of electrical equipment, lightning protection, protection against static electricity, a common ground loop shall be provided.

478. Inspection of lightning protection devices shall be carried out at least once a year in the pre-storm season. In this case, the resistance of the grounding device is measured, and the results of inspections and measurements are recorded in the log of lightning protection devices operation.

479. Based on the inspection and testing results, the persons who conducted inspection of lightning protection devices, shall draw up an act, and if defects are found - a protocol, and hand over one copy of the documents to the head of the facility.

480. In the event of a power outage, the facility is disconnected from external power networks. The power can be re-connected only after it is determined using a gas analyzer that there is no dangerous concentration of vapors and gases in the premises and outdoor installations where non-explosion-proof electrical equipment is installed (a hazardous environment containing 20% of the lower ignition concentration limit of explosive vapors and gases is considered dangerous).

481. Repair of devices in explosive and fire hazardous workshops must be carried out only by a cold method without the use of soldering, welding and other work associated with

the use of fire or high temperatures. Minor, current repairs of automatic control and regulation devices associated with operating technological devices and pipelines are allowed only after disconnecting the devices from processing installations and relieving the pressure. Use of open fire is not allowed either.

482. Each device that has undergone repairs shall be adjusted and tested in accordance with the requirements of the manufacturer's technical specifications in the scope of control tests.

483. Short-term use of equipment that has a normal (non-explosion-proof) design during the repair, testing and verification of automation equipment installed in explosive premises is allowed only if all the requirements for hot works are met.

484. It is not allowed to enter impulse lines into the premises of control and measuring instruments, replacing the state of combustible gases, vapors and liquids and connecting technological apparatus and pipelines under excessive pressure with instruments and equipment placed in the control and measuring instruments premises. In some cases (if necessary) - the entry of impulse tubes is allowed provided that control and measuring devices of separating vessels are installed outside the premises, as well as shut-off devices that prevent penetration of combustible gases and vapors into the control and measuring devices premises in case of rupture of impulse tubes.

485. Impulse lines from separating vessels to instruments and apparatuses may only be filled with an inert non-solidifying liquid that does not mix with the controlled product and does not dissolve in it.

Maintenance of linear part of the main oil product pipelines

486. Free passage of vehicles and mechanisms of repair and emergency teams shall be provided to any point of the oil product pipeline route.

487. When detecting an oil product release onto the earth's surface along the main pipeline route, line walkers shall immediately report this to the dispatchers at the pumping stations and act on their instructions. The place where the liquid exits within a 20-meter radius must be fenced off, with safety warning signs posted. At night, the accident site must be illuminated with red light signals (explosion-proof lamps).

488. When detecting a release of liquid onto the earth surface near a populated area, railways, highways and other structures, linemen, before the arrival of the repair and restoration team, shall organize a detour of the liquid spreading area, inform local administrations, firefighting authorities, police and with their help notify the population about the prohibition of the use of open fire, and block access of unauthorized persons to the oil spill place.

489. The accident site shall be provided with fire extinguishing equipment, if necessary, fire engines are on duty and measures are taken to prevent the oil products penetration into other communications and networks. Gas concentration is constantly monitored.

490. The accident liquidation site within a 5-meter radius must be cleared of grass, and the places where the soil is saturated with oil products are cleared and covered with earth.

491. Parking of tractors, cars and other units with internal combustion engines is allowed at a distance of at least 30 meters from the oil spill site.

492. At the depth of 0.3 meters or less from the top of the pipeline, as well as in gassed trenches or wells, work on opening it is carried out only with tools that exclude sparking during impacts.

493. The oil product pipeline route in a populated area shall be indicated by "Oil product pipeline" sign with the telephone number to be contacted in case of detected oil product seepage to the surface.

494. The state of an oil product pipeline shall be constantly monitored, both visually and with special instruments and devices enabling detection of defects in the pipeline that have appeared during its operation.

Maintenance of oil pumping stations

495. In the pumping stations premises, constant monitoring of the tightness of pumps and pipelines shall be carried out. Oil leakage of products in the pump glands and pipeline connections shall be immediately eliminated.

496. Premises for accommodation of internal combustion engines must be separated from the premises for pumps by gas-tight fireproof walls. It is not allowed to use flat belt drives in the premises where pumps for flammable liquids are kept.

497. Floors and trays in pump rooms must be regularly washed with water. Accumulation of oil products is not permissible. To remove spilled oil products, pump rooms must be equipped with water risers with rubber hoses. Hydraulic gates, at the connection points of waste channels of the pumping station to the sewer, shall be systematically inspected.

498. Lubrication of rubbing parts, the temperature of bearings and gland boxes and pumps shall be monitored. If any malfunctions are detected that violate the normal operation of the pumps, it is stopped, and the malfunction shall be eliminated.

499. Stationary automatic gas analyzers in the premises of the flammable petroleum products pumping station are blocked with emergency ventilation, as well as with sound and light signaling devices in the presence of a dangerous concentration of petroleum products' vapors in the premises.

500. In the absence of stationary gas analyzers, in order to determine the presence of a dangerous concentration of petroleum products vapors, the air medium must be periodically analyzed according to the relevant schedules by portable gas analyzers.

501. In oil pumping by temporary mobile pumping stations, the following measures shall be observed:

1) the station must be located no closer than 25 meters from the main pipeline route on an open, leveled area, and the pumping units must be securely fixed on metal frames that exclude vibration and movement during operation;

2) to prevent oil products ingress onto internal combustion engines in the event of leaks in pumps, the engines are separated from the pumps by a metal casing;

3) engine exhaust pipes are covered with non-combustible heat-insulating material, and their ends are lowered into bunkers dug into the ground;

4) places of possible oil products leaks (pipeline connections and stuffing box connections of pumps) are equipped with drainage devices to divert spilled oil products to a safe place;

5) when the station is located in a forest zone, the area around the pumping units is cleared, with deciduous trees within a radius of 20 meters, with conifers - within a radius of 50 meters and is bordered by a mineralized strip of at least 4 meters wide, and its territory is cleared of trees, logging residues , deadwood, dry grass;

6) the storage place of reserve fuel must be at a distance of at least 30 meters from the pumping station, cleared of vegetation and circled by at least 4 meters wide mineralized strip.

502. When operating a temporary pumping station, the following measures shall be observed:

1) to avoid oil leakage, pipelines are regularly inspected and subjected to preventive repairs;

2) oil leaks in pipelines and pumping stations are immediately eliminated;

3) if it is impossible to eliminate the leak, pumping work is suspended.

503. During the operation of a temporary pumping station, it is not allowed to:

1) operate engines with faulty mufflers;

2) use open-type lamps for lighting (for this purpose, electric explosion-proof battery-operated torch should be used);

3) use open fire, smoke, carry out welding and other fire-hazardous works;

4) use a tool that causes sparking on impact.

504. At each temporary pumping station on the main pipeline routes, water reserve shall be kept for extinguishing in case of a fire, and a fire motor pump.

Maintenance of railway loading and unloading racks

505. At the sites of oil depots and oil handling points (stations), main product pipelines, where loading and unloading facilities are located, in the event of an accident and spills, an unhindered flow of liquid into discharge troughs or ditches connected through hydraulic gates to a collector or industrial sewerage shall be provided.

506. On both sides of the loading and unloading devices or risers standing separately on the railway tracks (at a distance of two two-axle or one four-axle cars), signal signs - control posts shall be installed, beyond which diesel locomotives are prohibited to enter.507. The supply of routes for unloading (loading) onto the free railway tracks of the cargo pier shall be

controlled by the personnel of the oil depot (loading point, station). Brake shoe holders are installed by railway workers. Movement of diesel locomotives on railway tracks on which oil handling facilities are located is not allowed.

508. Oil handling facilities, pipelines and pipeline fittings must be under regular inspection and scheduled preventive maintenance. Detected malfunctions and leaks must be immediately eliminated. The faulty part of the draining device (or pipe section) must be turned off.

509. Marshaling of railway tank cars and uncoupling are carried out outside the loading and unloading rack. During loading and unloading operations with a vapor flash point of less than 61°C on the cargo pier, shunting and moving the next route to a free track are not allowed. During draining operations carried out with the help of pressurized drain devices, it is allowed to supply railway tanks with oil products to a free rack.

510. Railway tanks for draining and filling must be fed in and out smoothly, without jolts and jerks. On the territory of oil handling facilities, it is not allowed to slow down and fix railway tanks with metal shoe holders. For these purposes, wooden linings or shoes made of metal that do not cause sparking are used.

511. When filling or draining flammable liquids, shocks are not allowed when closing the hatch covers of tanks, when connecting hoses and other devices to railway tanks. The tool used in the handling operations must be made of material that does not cause sparks on impact. When filling, the tip of the hose is lowered to the tank bottom; filling is carried out under the liquid level to avoid splashing. Tank hatch covers must be supplied with rubber strips.

512. It is not allowed to drain and load oil products during discharges of atmospheric electricity; hatches of railway tanks must be closed.

513. For spot lighting during loading and unloading operations, rechargeable explosion-proof lamps shall be used.

514. On the railway loading and unloading rack for flammable oil products transitional bridges must be equipped with wooden pillows with countersunk bolts or other materials that exclude sparking.

Footnote. Paragraph 514 as amended by Resolution No. 919 of the Government of the Republic of Kazakhstan dated 29.12. 2017 (shall be enforced ten calendar days after the date of its first official publication).

515. Steel crowbars or other steel objects may not be used as levers for shifting and rolling up railway tanks to the place of discharge and loading. Railway tanks are rolled up only with the help of winches.

516. Railway tanks without a technical inspection mark and with a clear sign of leakage or other malfunctions that prevent the oil products loading may not be accepted for loading.

517. Before draining or loading of oil products, the correct opening of all switching valves , gate valves, as well as serviceability of drain-loading devices, tightness of the connections of hoses or telescopic pipes shall be checked.

518. When opening the hatch of a railway tank and adjusting the hoses, the persons performing these operations must be on the windward side of the hatch.

519. If a leak is detected in a railway tank car during loading, loading into this tank shall be immediately suspended until the fault is completely eliminated. If it is impossible to eliminate the leak, the tank car must be drained of the poured oil product and returned to the departure station.

520. It is not allowed to open faulty bottom drain devices of railway tanks with the help of appliances that are not designed for it and cause sparking. The lower drain device of the tank is connected to the drain-fill collector only after the shoes (stops) are installed under the wheels of the tank and the locomotive is removed from this track.

521. Upon completion of the oil products loading into railway tanks, the hoses, risers and collectors located at the top of the loading racks are drained from oil products, and the hatch covers of railway tanks are hermetically closed.

522. Solidified oil products in the loading and unloading devices of railway tanks are heated only by steam, as well as by special heaters approved for operation for these purposes. Open fire is not allowed.

523. When heating viscous oil products in railway tanks with steam coils, the latter are put into operation only after they are completely immersed in oil products to a depth of at least 0.5 meters. During heating, it is necessary to ensure that when the oil product expands with an increase in its temperature, there is no release from the tank. The liquid heating temperature in tanks may not be lower than the flash point of the vapors of this liquid by 15° C.

It is not allowed to drain oil products from tank cars during their heating with electric heaters.

524. The lower discharge of flammable oil products is carried out only through pressurized drain devices.

525. On the railway tracks of the loading and unloading racks located on electrified railways, two insulating joints must be installed: the first - outside the front of the drain, the second - at the dead end arrow.

526. Loading into railway systems at low temperatures is carried out taking into account the volumetric expansion of the oil product during the transportation of these tanks to areas with higher air temperatures.

527. Railway tracks, cargo piers, pipelines, telescopic pipes and hose ends must be grounded. The resistance of grounding devices must be checked at least once a year according to the schedule approved by the chief engineer of the facility.

528. Working and evacuation ladders of railway cargo piers shall be kept in good condition.

529. The winches installed at the end of the railway cul-de-sacs of the cargo piers shall be kept in good condition. During draining and loading of oil products, the winch cable must be uncoiled.

Maintenance of oil handling piers and onshore facilities

530. Oil handling berths and piers must be built of non-combustible materials. Driveways for fire trucks and walkways shall be kept in good condition and non-obstructed by various objects.

531. Onshore pipelines for oil products loading and unloading shall be equipped with emergency valves, which are installed at a distance of 30 meters from the berth. Bridges made of non-combustible materials must be provided at the pipeline crossing points.

532. Flanges of portable drain-and-fill pipelines and couplings of portable hoses shall be made of metal, which excludes sparking when hitting the deck.

533. Vessels with flammable oil products shall be moored and fastened at the pier with non-metallic ropes. As an exception, metal mooring cables are used, while the deck workplaces and mooring bollard bitts are covered with decking or insulating material that excludes sparking.

534. Oil tankers must be grounded before connecting pipelines with oil hoses. Grounding devices are removed only after loading and unloading operations are completed and the pipelines are disconnected from the loading arms near the vessel.

535. The hoses connecting the ship's pipeline with the onshore loading and unloading devices must be of the appropriate length so that the vessel can move freely at the pier. The hoses are held with soft slings or wooden stands. Coupling and fastening of the vessel's hose are securely fastened to prevent them from falling, breaking and friction.

536. When using lifting devices installed on the berths of the tank farm, the hoists are systematically lubricated, and the places where the chain contacts the deck are covered with mats or wooden shields.

537. When assembling and disassembling the connecting pipelines and hoses connecting the vessel with the onshore facilities, a tool must be used that excludes sparking on impact.

538. Cargo handling operations shall be carried out with the participation of at least two people.

539. The maintenance staff of the berth and the vessel shall constantly monitor the progress of loading and unloading and the condition of the equipment. The formed leakage of oil products shall be immediately eliminated; if this is not possible, then the oil handling operations shall be suspended until the equipment is completely repaired.

540. It is forbidden to drain and load oil products during a thunderstorm.

541. During loading and unloading operations, at water piers, vessels, pumping stations and closer than 20 meters from them, the following is forbidden:

1) hot works, smoking and use of open fire;

2) use of faulty electric lighting devices;

3) use of portable electric and other lamps for lighting (except for rechargeable explosion-proof lamps);

4) staying of persons not connected with oil cargo handling operations;

5) receiving and loading into the vessel of oil products heated to a temperature above + 45 °C.

Maintenance of tank-truck loading racks, oil barreling and packaging facilities

542. On oil handling sites a hard surface and unhindered flow of various liquids through a hydraulic gate into the drainage system or a special collector must be provided. Spilled liquids are washed off with water.

543. The permissible number of vehicles on the handling site at a time is established by the facility's administration.

544. It is not allowed to admit defective vehicles to the handling site territory, as well as their repair on the territory of the facility.

545. Tank trucks intended for petroleum products transportation shall be equipped with grounding devices for connection to the ground loop of the loading rack; mufflers of tank trucks must be equipped with spark arresters and drawn forward under the engine or radiator. Tank trucks must be equipped with a grounding chain the length of 100-200 millimeters touching the ground, and with two fire extinguishers, a fire blanket, a sandbox with dry sand and a shovel.

546. At the checkpoint of the facility and the oil products loading site, the enterprise staff shall check by external inspection the serviceability of the tank truck and its provision with fire extinguishing equipment.

547. The maintenance staff of the facility (operator or other person) shall control the process of loading into tank trucks.

548. Petroleum products are loaded into a tank truck when the engine is not running. At the same time, the driver shall control the loading process. With an automatic filling system, the driver must perform the actions provided for by the instructions for this system. Loading with the engine running is allowed only at low temperatures, when starting the engine is difficult.

549. A tank truck loading rack shall be provided with a cable or bar for towing tankers away in case of a fire.

550. Upon completion of loading, the loading hoses (tips) are removed from the filler hole of the tanker after the oil products have been completely drained from them. The lid of the tank truck filler hole must be closed carefully, avoiding shocks.

551. Tank truck drivers shall be instructed (with the issuance of certificates at the truck company) on fire safety measures when transporting petroleum products.

552. It is not allowed to start the engine of a tank truck under filling, in cases when a spill (overflow) of an oil product happened.

553. It is not allowed to store empty containers and containers filled with oil products, as well as foreign objects and equipment in the barreling room. In the barreling room, a central passage with a width of at least 2 meters must be provided. Passage obstruction is not allowed .

554. Petroleum products to be barreled may be distributed only by the maintenance staff of the facility. Before the petroleum products distribution, the maintenance staff shall inspect the containers to be filled. Oil products must not be loaded into defective containers.

Maintenance of spent oil gathering, sale and refining points

555. Spent oil products gathering and shipment points, as well as regeneration units, are accommodated in the oil products retail sale area. Reception and release (shipment) of petroleum products is carried out by the enterprise staff or in their presence.

556. Breathing and safety fittings on tanks are used when storing a spent mixture of petroleum products, the same as on tanks for storing flammable liquids, and when storing spent industrial and motor oils - as on oil storage tanks.

557. The heating temperature of spent oil products must be 15 °C below the flash point of the vapors of the component included in their composition with the lowest vapor flash point.

558. Spent oil handling machinery with a flash point of 120 °C and below must be kept closed.

559. It is allowed to have no more than a daily fuel requirement in the service tanks of the stripping section of regeneration plants. These tanks are installed outside the premises.

560. The chimneys of a tubular furnace and a vat installation must be water steam blown at least once a day to avoid soot accumulation.

561. Filter presses of regeneration plants are installed on metal frames and fireproof foundations. Under the filter presses, special metal trays are installed to collect spilled oil.

562. During the regeneration plant operation, it is not allowed to overfill the kerosene tanks; as they fill up and at the end of the shift, they must be drained of oil products.

563. Before putting into operation, stills and steam boilers of mobile recovery plants must be checked for hydraulic pressure. Safety valves and pressure gauges must be installed on steam boilers and stills. During the operation of mobile regeneration units, maintenance personnel shall constantly monitor the instrumentation readings.

Maintenance of in-site process pipelines and pipeline fittings

564. Technological schemes shall be drawn up for pipelines of oil depots, loading and pumping stations, on which each pipeline has a specific designation, and shutdown valves are numbered. The maintenance staff shall be familiarized with the technological scheme of pipelines, to be able to switch valves in case of accidents and fires.

565. Process pipelines with all fittings installed on them are subjected to a hydraulic test for strength and tightness of joints before commissioning.

566. Constant supervision must be established over the state of fastenings of above-ground pipelines and supports to avoid their dangerous sagging and deformation. Malfunctions of pipelines, suspensions and supports shall be immediately eliminated.

567. It is not allowed to clear the pipeline from plugs formed in it with the help of steel rods and other devices that can cause sparking from friction or impact on the pipe body.

568. It is not allowed to heat pipelines and valves with open fire. For this purpose, only steam, hot water or heated sand must be used, and factory-made electric heaters are also used.

569. Pipelines and locking devices are subject to preventive maintenance in accordance with the schedule approved by the chief engineer of the facility.

570. Arrangement of dead ends is excluded on pipelines. In cases where the arrangement of these sections is necessary, they must be constantly monitored.

571. Repair works are not allowed on pipelines filled with oil products.

5. Maintenance of oil and gas industry facilities

General provisions

572. Surface equipment for drilling, testing, workover of wells, outlets of blowout preventers, control stations, industrial and residential premises, storage areas, access roads, helipads must be located taking into account the prevailing wind direction for each specific area.

573. The territory allotted for installation shall be freed from surface and underground pipelines, cables, cleared of trees, shrubs, and grass.

For the movement of vehicles and fire equipment around ground structures, a platform with a width of 10-12 meters shall be provided.

In the territory planning, liquid withdrawal from the mouth and ground structures into special pits (traps) must be provided.

574. The structures' covering must be of non-combustible materials. In other cases, the structure is treated with a flame retardant.

575. Fuel containers and installations shall be located no closer than 20 meters from ground facilities, equipment, pipelines. Fuel installations must be equipped with pumps, tanks with level gauges, warning and prohibition inscriptions (signs). At the installation sites, an access road and embankment shall be made based on the storage amount of fuels and lubricants.

576. Flanged and detachable connections are not allowed in pipelines of explosive and fire hazardous technological systems, except for the places where fittings are installed or devices are connected. Flexible hoses must not be used in explosive technological systems.

577. On the suction and discharge lines of pumps and compressors that pump combustible products, shutdown, shut-off and safety devices shall be installed.

578. If a leak, seepage, spill of fuels and lubricants, oil products is detected, the malfunction shall be immediately eliminated, the spill site shall be thoroughly cleaned.

579. It is not allowed to store fuels and lubricants and flammable materials inside fire and explosion hazardous structures.

580. Fire-extinguishing appliances shall be placed near fire hazardous places (power and pump unit, fuel plants, power plant, wellhead).

581. Exhaust lines of internal combustion engines shall be laid at the distance of at least 15 meters from the wellhead, 5 meters from the wall of the shelter (base) and 1.5 meters from the top of the roof (canopy). It is not allowed to lay exhaust pipes under engines, bases, flooring.

In places where the exhaust line passes through walls, shelters, a roof (canopy), a gap of at least three pipe diameters must be made. In this place, a heat-insulating gasket and non-combustible separation shall be installed.

Exhaust lines shall be equipped with spark arresters.

582. At low temperatures, equipment and pipelines subject to freezing shall be insulated and provided with heating, excluding the use of open fire.

583. Use of open fire and smoking are not allowed in fire hazardous and explosive premises, under foundations, gas hazardous places, near tanks storing fuels and lubricants, oil products, combustible substances and reagents.

For smoking, specially equipped places shall be allotted in a fireproof zone, marked with inscriptions.

584. It is not allowed to conduct gas hazardous, hot and welding works in the presence of gas pollution, contamination with fuels and lubricants, oil products.

585. Power, drilling and oilfield equipment, shelters, the wellhead and the territory of the facility shall be constantly kept in a fire-safe condition, regularly protected from oil contamination, spills of fuels and lubricants, oil products.

Well drilling works procedure

586. Technique and technology of drilling, fixing, testing of wells is maximally subject to exclusion of uncontrolled inflow of formation fluid from productive horizons.

In the event of oil and gas seepage and emergency operations, complete tightness shall be ensured of ground equipment and piping, fluid removal to a safe distance from wells and fire and explosion safety when performing technological operations to eliminate oil and gas seepage, accidents.

587. When a drilling rig is put into operation, the facility's commission shall check explosion and fire safety of the equipment, completeness of the fire-fighting appliances and inventory, presence of emergency lighting, the report card of the fire combat force, which is recorded in the acceptance certificate of the drilling rig.

588. When using oil-based drilling fluids, measures for explosion and fire safety, control of gas contamination of the air, which are indicated in the instructions and the work plan, are applied. The self-ignition temperature of the oil-based fluid is exceeded by 50°C of the maximum expected temperature at the wellhead and during preparation and processing of the fluid.

589. When detecting maximum permissible concentrations of harmful substances in the air of the working area and maximum permissible explosion-proof concentrations, it is necessary to:

1) suspend the technological process;

2) immediately inform the head of the facility, shift;

3) determine the cause and zone of gas contamination;

4) use personal protective equipment;

5) check the fire appliances readiness;

6) take measures (actions) in accordance with the accident response Plan and the specific situation.

590. After completion of drilling, testing, work to eliminate gas, oil, and water intrusions, open fountains and accidents, the derricks, drilling equipment and the territory shall be cleaned from oil contamination, excess equipment and materials. Approaches and driveways to the drilling rig shall be cleared.

591. Special machinery used in cementing, installation of oil and acid baths, research and emergency work shall be operated only in the presence of exhaust pipe spark arresters.

Operation of oil and gas wells

Development of wells

592. Oil and gas wells development and testing works shall be carried out in accordance with the well construction project, in which technology is developed in special sections, technical means for performing testing work and fire and explosion safety measures are determined.

593. Before starting work, a schedule of preparatory, main and final work, as well as a plan for elimination of a possible accident, must be attached.

594. A diagram of the placement and piping of equipment used for the development of wells must be attached to the schedule.

595. Before starting well development work, the person in charge shall conduct a briefing with fire safety team members and make an appropriate entry in the log "Registration of safety briefings at the workplace."

596. All the team members taking part in the development of wells shall wear special clothes and special footwear.

597. Development facilities shall be provided with fire-fighting devices and appliances in accordance with Appendix 4 to these Rules.

598. Wells blasting operations shall be carried out with the permission of the work manager in charge and in the presence of a geologist of oil and gas producing or drilling enterprise.

599. Before perforating and blasting operations, blowout preventer equipment shall be carefully checked and put to the pressure specified in the work plan.

600. During tripping operations, a funnel made of non-sparking material is installed on the landing flange.

601. When developing a well, a mobile compressor is installed at a distance of at least 25 meters from the well on the windward side.

602. When flushing a well with oil, the unit is installed at a distance of at least 10 meters from the wellhead.

603. Development of gas and gas condensate wells by swabbing, and of flow wells by bailing, is not allowed.

604. Well swabbing is carried out with a sealing device installed on the buffer valve of the wellhead equipment, which prevents oil release.

605. When developing a fountain well by swabbing:

1) combustible canopy structures to protect the unit operating at the control panel are treated with a fire retardant composition;

2) a guide funnel made of non-sparking material is installed;

3) tractor-lift is installed at a distance not closer than 25 meters from the wellhead.

606. When developing wells with mobile units, it is possible to connect to the working manifold the required number of units both for development and in case of well killing.

607. When signs of gushing appear, actions shall be taken according to the plan for eliminating accidents and sealing the wellhead.

608. During breaks and stops in a fountain well development process, the central valve of the wellhead equipment and on the cross tree must be closed.

609. When inducing an inflow by injecting compressed air or aerating a liquid with air, interruptions in the process are not allowed.

Flowing wells operating procedure

610. All wells put into operation shall be provided with sealed wellheads completed with appropriate equipment.

611. X-mas tree assembly is carried out with a full set of studs with gaskets.

612. The piping of the flowing well and communications is preliminarily prepared for receiving well production before the production string is perforated.

613. To avoid ignition (fire), a device for draining oil into common pits and traps along open ditches must not be released.

614. To prevent ingress of oil and gas from the well into the compressor, check valves are installed on the lines from the gas and air distribution booths near the wells.

615. On gas or air collectors of gas and air distribution booths, lines are provided, the length of which corresponds to the design.

616. From the outside of the gas distribution booths premises, “Gas! Flammable!" signs shall be put up.

617. Exhaust pipes of internal combustion engines of mobile compressors shall be equipped with a muffler with a spark arrestor.

618. Annular gas pressure is removed only with the help of a fitting through the second valve from the crosspiece with the first (root) one open.

619. Well piping, branches, equipment, as well as gas pipelines under pressure, may be heated only with steam or hot water.

Maintenance of compressor stations

620. When the compressor is running, the temperature of gas and water in coolers shall be controlled.

621. On the discharge line of the last compression stage of the compressor (outside the compressor building), a safety device must be installed that operates at a pressure exceeding the working one by 10%.

622. The compressor shall be equipped with a signaling of parameter deviations from normal operation, as well as automatic shutdown when the pressure and temperature of the combusted gas (air) rises, when the supply of cooling water stops and the pressure drops at the intake and in the lubrication system.

623. The rubbing parts of the compressor must be regularly lubricated, and the temperature of the used oil is also monitored.

624. It is not allowed to operate the compressor without purification of the compressed gas or air from oil after each compression stage. When the compressor is running, regular release from the oil separators must be ensured.

625. It is not allowed to exceed the content of the air mixture components specified in the data sheet and regulations for each operation mode.

626. To prevent air ingress into compressors that compress gas, the suction lines must be kept at a slight overpressure of the gas.

627. If, due to the operating conditions of the compressor, the suction line is under vacuum pressure, then the gas after compression has to be systematically analyzed for oxygen content.

628. All connections of gas compressors and gas pipelines shall be systematically checked for tightness. When a gas leak is detected, the compressor must be stopped and the defects are eliminated.

629. For the lighting devices repair period or an emergency power outage in gas compressor stations, only explosion-proof rechargeable lamps may be used.

630. It is not allowed to place appliances and equipment unrelated to the operation of the compressor unit in gas compressor rooms.

631. Compressors that are in reserve are disconnected from the gas intake and injection lines.

632. Air intake for air compressors is made outside the building.

Air intake is not allowed in places where flammable vapors or gases are emitted, as well as in places where ignition sources may appear.

If flammable vapors or gases enter the compressor, it must be immediately stopped.

633. Compressors, communications of air compressor stations are cleared of oil deposits by washing with sulphonal aqueous solution, according to the schedule and technical documentation.

Deep-pumping operation procedure

634. The pumping unit must be installed in a way that excludes contact of its rubbing and moving parts with parts of the derrick or mast, foundation and pound, power lines.

635. It is not allowed to turn the pulley of the pumping unit manually and slow it down by placing metal or other objects.

636. Before starting repair works on the well, the drive must be turned off, with “Do not turn on! People are working” sign put up.

637. A beam well must have wellhead fittings that seal the wellhead and enable gas withdrawal from the annular space.

638. To prevent slipping of drive belts during the pumping unit operation, their tension is controlled.

639. Access shall be provided for inspection of grounding conductors and places of their welding. For the grounding conductor, the use of a steel rope is not allowed.

640. It is not allowed to install control stations, autotransformers, transformers under the wires of power lines of any voltage.

641. A room or booth for the installation of electrical equipment of submersible centrifugal electric pumps shall be made of non-combustible material.

642. Before lowering and raising of the submersible electric pump, a device must be installed on the wellhead flange to protect the cable from damage by the elevator.

643. Push-button control of the electric drive of the cable drum, located at the wellhead, should be explosion-proof.

644. The wellhead must be equipped with a suspension washer with sealants in the cable fitting places.

645. When the wells are blown and measurements are made, motor vehicles and tractors that are near the wells are muffled, and boiler furnaces are stopped.

646. For the test duration, posts shall be set up on all roads with warning signs prohibiting traffic, smoking and making fire.

Oil and gas production stimulation

647. Production stimulation methods shall be implemented according to the plan approved by the head (deputy) of the oil and gas producing facility.

648. The facility administration shall develop a plan for elimination of possible accidents and fires, taking into account the production stimulation methods. The plan is prominently put up.

649. Objects practicing production stimulation methods shall be provided with reliable telephone or radio communication with the central dispatcher board of the enterprise.

650. Signs are put up at the transmission means indicating the names and order of giving signals, calling leaders and persons in charge, the fire department, ambulance, gas rescue service.

651. During operation, the exhaust pipes of mobile pumping units and vehicles shall be fitted with mufflers with spark arresters.

652. Oil and chemical residues from the containers of units and tankers may not be discharged into industrial sewers.

653. All production and auxiliary premises, structures and warehouses shall be provided with primary fire extinguishing equipment in accordance with Appendix 4 to these Rules.

654. It is not allowed to use fire-fighting inventory and appliances, emergency and gas rescue equipment for work unrelated to their direct purpose.

655. When preparing a solution of chemicals, using and storing them, smoking and making fire is not allowed. Smoking is allowed in designated areas.

656. Containers with foam reagent and other combustible chemicals shall bear the inscription “Flammable”.

657. Filling and draining of foam reagent and other combustible chemicals during a thunderstorm is not allowed.

658. Mobile technological equipment for injection of a reagent into the reservoir shall be placed taking into account the terrain and wind direction in order to ensure its exit from the danger zone and personnel evacuation if necessary.

659. It is not allowed to place mobile equipment, pumping units within the security zone of overhead power lines or above oil and gas pipelines.

660. It is not allowed to leave the steam generator installation unmanned, until the operation is stopped and the pressure in the steam generator is reduced to atmospheric pressure.

661. Explosion-proof lamps with a voltage not exceeding 12 volts are used as portable electric lighting in a steam generator installation.

662. Steam-thermal treatment of the well bottom zone is carried out during daylight hours

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663. Fire-and-explosion-proof electrical equipment of the metering pump, mounted on a trolley (sleigh) with a fuel tank shall be provided in accordance with the electrical installation Rules.

664. The furnace shall be equipped with automatic devices that regulate the temperature of the heated oil within the prescribed limits, and also cut off the gas supply to the burners when the gas pressure specified by the manufacturer rises or falls.

665. An adjusted reducing appliance and a safety valve in the burner, as well as an appliance preventing condensate from entering the control and measuring devices, must be equipped on the fuel pipeline.

666. Before ignition of the furnace burner, it is necessary make sure that the coil is filled with oil.

667. Electrical equipment installed on a trolley (sleigh) with a tank for oil, as well as stationary installations for heating oil, should be explosion-proof in accordance with the electrical installation Rules.

668. Spark arresters shall be fitted on technical vehicles (cars, tractors).

669. Tanks with hot oil must be installed no closer than 10 meters from the wellhead on the leeward side.

670. Before oil injection, the collapsible flow line from the pump to the well is compressed to one and a half times the pressure of the maximum working pressure.

671. Compressors and electrical equipment are installed at no closer than 10 meters distance, a compressor with an internal combustion engine - no closer than 25 meters from the wellhead. Spark arrestor shall be fitted on the exhaust pipe of the internal combustion engine.

672. Only degassed condensate shall be used for well treatment.

673. An inscription or sign "Flammable" shall be indicated on tank trucks or other containers with gas condensate.

674. Gas condensate transportation by tank trucks is possible only with hermetically closed hatches and drain fittings.

675. Before draining or pouring condensate, the tanker must be grounded. It is not allowed to disconnect the grounding device before the end of the drain or filling.

676. Filling and unloading, treatment of the well shall be carried out only in the daytime.

677. It is not allowed to stop a tank truck filled with gas condensate within settlements, near places with open fire.

678. Units and tank trucks shall be installed no closer than 25 meters from the wellhead and at least 6 meters from each other on the windward side.

679. A water tanker shall be installed at a distance of 25 meters from the units and tankers with gas condensate.

680. When treating a well, it is not allowed to pump gas condensate from a tanker truck into a bunker and to the intake of the unit.

681. Before starting and during the treatment of a well with gas condensate, the area of work shall be checked for gas contamination. In the presence of a gas concentration exceeding the maximum allowable concentration, gas condensate injection operations shall be immediately stopped and measures shall be taken in keeping with the emergency response plan.

682. After the well is treated with gas condensate, the manifold line of the unit and the well fittings must be flushed with water.

683. The manifold is disconnected only after the valves on the well fittings are closed and the pressure is reduced to atmospheric pressure.

684. During the well treatment with gas condensate, the maintenance personnel shall be at a safe distance specified in the work plan.

685. Mufflers with spark arresters shall be installed on exhaust pipes of units and other machines used in hydraulic fracturing operations.

686. Units shall be started only after the people unrelated to the direct performance of the work at the units, are moved outside the danger zone.

687. Remains of fracturing fluid and oil must be drained from the tanks of units and tank trucks into an oil trap or a special container.

688. During long stoppages of work in winter, it is not allowed to warm up the manifold and the system of injection pipelines with an open fire.

689. Fuel tanks of the power plant must be installed in a fireproof place and protected against damage.

690. The territory of the site where the formation is treated by in-situ combustion front method shall be supplied with warning posters and fenced with metal pickets with a red flag.

691. Wells are categorized according to the degree of danger of harmful gases emission and the temperature of oil and gas.

Current and major repairs procedure

692. It is not allowed to install a tractor-hoist and a mobile unit on the territory contaminated with fuels and lubricants, oil products.

693. Tractor-hoist, mobile unit shall be installed at a distance of at least 25 meters from the wellhead on the windward side.

694. The flushing unit must be installed near the manifold and tank with the unit driver's cab facing the wellhead.

695. The hoist must be refueled with the engine turned off after cooling.

696. Wellhead fittings are dismantled after the well is killed and the pressure is downed to zero.

697. Gas is diverted to a safe side from the well according to the scheme. The gas outlet line must be securely attached to the racks.

698. Landing of the elevator at lifting and lowering of the pipes must be carried out smoothly, without shock to avoid sparking.

699. During breaks in the work of lifting and lowering of pipes, the wellhead must be sealed hermetically.

700. When lifting pipes, a device must be installed against splashing and spilling of fluid, solution.

701. It is not allowed to carry out work related to sparking, as well as hot work at the wellhead without written permission.

702. When washing a sand plug with water, the washing liquid must be discharged into an industrial sewer or container. Washing of the plug with oil is carried out in a closed cycle.

703. When washing sand plugs in wells, blowout prevention equipment, a ball valve, and check valves are installed.

704. A water line with a valve and a hose is laid to the well.

705. It is not allowed to start work in the presence of oil and gas intrusions, pipe and annular pressure.

706. Light and sound alarms shall be installed on tractor-hoists and mobile units.

707. The object shall be stocked with fire-fighting appliances in accordance with Appendix 4 to these Rules.

708. In the process of work, the state of the well shall be constantly monitored, if signs of gas, oil and water intrusion are detected, the team seals the wellhead and performs actions according to the emergency response plan.

Oil and gas collection, preparation, storage and transportation

709. The serviceability of safety, control and shut-off valves installed on the equipment, tanks and pipelines shall be checked before commissioning, and also periodically in accordance with the approved schedule under the guidance of an engineer and technician. The results of checks and inspections are recorded in the logbook.

710. To measure the level of flammable liquids, fireproof meters are used. Measuring glasses are allowed on devices and containers operating with an overpressure of no more than 0.6 MegaPascal (hereinafter referred to as Mg / Pa) (6 kgf / cm2), provided that the glass is protected against mechanical damage, presence of valves that automatically close the connecting tubes, and a red line on the glass showing the maximum allowable level of liquid and pressure of no more than 0.6 MPa (6 kgf / cm2).

711. Non-combustible materials shall be used for thermal insulation of equipment.

712. Before letting the steam or gas into the heating apparatus, the supply lines must be purged to avoid dangerous pressures or deformations.

713. The start-up of the heating agent in the apparatuses is carried out slowly with a gradual increase in the temperature in the apparatuses.

714. During the descent after settling of water and sediment from the devices of reservoirs (containers), control over the flow shall be carried out, preventing oil from flowing out to work sites and territories.

715. The safety valve is supplied with a branch, with a diameter not less than the outlet.

716. Ramps, separators and other appliances shall be equipped with ladders and service platforms.

717. Oil and sand traps must be made of non-combustible material. A fence with a height of at least 1 meter shall be installed around the open oil trap.

718. Trays from settling tanks and tanks at people's crossing places shall be enclosed with metal boards.

719. The flare riser must be located at a distance of no closer than 100 meters, and an earthen container no closer than 50 meters from the fencing of the group installation. Around the container, a dike the height of at least 1 meter is provided, and a flare device is fenced off.

720. When purging drains and separators, the locking device on the purge line must open and close gradually and smoothly.

721. For a group of separators having the same pressure, from the safety devices it can be diverted to a common line (collector) to the flare.

722. When airlift wells are connected to the separator, the gas-air mixture leaving the separator shall be checked for air content.

723. Level gauge glasses on ladders must be provided with outlets for blowing into a closed container or sewer.

724. The site for heat exchangers with fire heating is equipped with drains into the industrial sewerage through a hydraulic gate and is provided with an oil flushing device.

725. Heating (at start-up) and cooling (at stop) of heat exchangers must be carried out smoothly to avoid damage from thermal stresses.

726. The release of the heat exchanger from flammable liquids is carried out only after the cooling of the heat exchangers.

727. The platform in front of the nozzles is provided with a hard surface and a slope towards the tray connected to the industrial sewer through a hydraulic gate.

728. Furnace may be ignited and started only by persons responsible for operation.

729. When kindling nozzles with a torch, it is not allowed to impregnate it with a flammable liquid.

730. A torch used for kindling must be extinguished in a fireproof box with dry sand.

731. The fuel pipeline must be equipped with a valve (at a distance of at least 10 meters from the front of the nozzles), enabling simultaneous stopping of the fuel supply to all nozzles , reducing devices adjusted to the pressure necessary for burning of burners, as well as condensate collectors to prevent condensate from entering the automation system, control and measuring devices. Alarms from automatic devices are displayed in the control room.

732. In the event of malfunction of the installation, the fuel gas pipeline must be hermetically disconnected from the furnace and plugged off.

733. The stationary fire-extinguishing system of stoves shall be always kept in good condition. The system's piping shall be in a place convenient for passage and is painted red. The system can be switched on automatically and remotely.

734. It is not allowed to light the burner without first purging the furnace with steam. Purge candles of the furnace piping must be positioned in a safe place in accordance with the project and technical documentation.

735. Gas pipelines of nozzles (burners) must be equipped with a purge line with gas outlet to the flare line.

736. Disrepair of devices that are designed in case of an accident or fire to drain oil is inadmissible. The valves of the emergency drain lines are marked with identification marks, and the approaches to them are cleared. Emergency discharge is carried out only at the direction of the head of the workshop, or the manager in charge of the work to eliminate the accident (fire). The sequence of operations during the emergency drain is provided for by the instruction.

737. From the emergency tank, before starting the descent into it of hot liquid, watered products are carefully removed and dry steam is supplied.

738. In the event of a fire at the front of the stove nozzles, twin chambers, soot burning in the breeching and the chimney, steam is launched through the steam extinguishing lines and the fire service is called.

739. During a tube furnace operation, systematic monitoring of the condition of the pipes should be ensured.

The operation of the furnace with bulges and bubbles on the pipes, as well as with an increase in the permissible limits of pipe wear, is not allowed.

740. Furnaces shall be equipped with flame extinction signaling devices, automatic devices that stop fuel supply to the nozzles (burners) when they go out, signaling the maximum allowable temperature at the furnace bridgewall.

741. Forced spark-proof supply and exhaust ventilation shall be installed in the oil transfer pumping unit.

Starting the pumps into operation with faulty or switched off ventilation is not allowed.

742. Premises for accommodation of internal combustion engines shall be separated from the pump rooms by gas-tight walls. Flat belt drives may not be used in rooms where pumps for flammable liquids are installed.

743. Places where intermediate shafts pass through walls are equipped with stuffing box seals.

744. During the operation of pumps, lubrication of rubbing parts, as well the temperature of the bearings and stuffing boxes of the pumps shall be under constant control.

745. Accumulation of lubricants under pumps, their spreading and splashing is not allowed. The floors in the pump rooms shall be kept clean and regularly flushed with water.

746. In pump rooms, control over the tightness of pumps and pipelines shall be established. Leaks in pump stuffing boxes and piping connections shall be repaired immediately.

747. At the location of the block of valves, a tray must be placed to drain liquid into the industrial sewer through a hydraulic gate. If it is impossible to drain the liquid into the industrial sewer, a closed collection pit must be provided with the liquid pumped out by a pump.

748. Storage of lubricants in pump rooms is allowed in an amount not exceeding the daily requirement. Lubricants shall be stored in special metal drums or boxes with lids.

It is not allowed to store flammable and combustible liquids in the pump room.

749. Before starting and stopping the pump, the correct opening and closing of the corresponding valves shall be checked.

750. To remove spilled oil products, pump rooms must be equipped with water risers with rubber hoses.

751. At the end of the operation, the valves at the intakes and discharges of the pumps and at the tanks must be closed, the premises are inspected, spilled oil is removed, all installations and lighting are turned off.

752. Pipelines (oil and gas pipelines), depending on the transported substance, shall be provided with identification coloring and digital designation. Technological schemes are drawn up for pipelines connecting tanks with equipment, stops and other structures, with certain designations on each pipeline, and numbering on stop valves.

753. Maintenance staff need to know the layout of valves and their purpose, and also have to be able to accurately perform technological actions.

754. Changing the existing layouts of the pipeline without the permission and approval of the new scheme by the head of the enterprise is not allowed.

755. Purging and testing of pipelines for tightness and strength is carried out in accordance with the instructions. The instruction and work plan for purging and testing pipelines for tightness and strength are drawn up by a construction organization and agreed with the technical management of the enterprise operating the pipeline.

756. When purging and testing the pipeline, it is not allowed to drive, stay within the conjunction zone of cars, tractors with running engines, and also to use open fire and smoke.

757. In the event of an accident on a pipeline near a railway or highway, the accident area shall be immediately cordoned off, warning signs are put up, traffic is stopped and measures are taken to eliminate the accident in accordance with the liquidation plan.

758. Warning signs shall be put up from the accident site at a distance of at least 800 meters on both sides of the road. The railway service shall be notified immediately.

759. Locking devices on pipelines shall be kept in good condition, easily accessible, to ensure the possibility of reliably stopping the flow of oil and gas into individual sections of pipelines.

760. For the inspection of locking devices at the facility, schedules are drawn up, approved by the heads of enterprises. Locking devices on pipelines shall be inspected at least once a quarter, at especially critical nodes - at least once a month. The inspections results are recorded in a log or in passports on the pipeline.

761. The pipeline can be connected only by welding. Threaded and flanged connections are allowed in installation places of disconnecting devices, of instrumentation and other fittings, with tight seals.

Flange joint gaskets must be made of materials that do not break or deform at elevated temperatures.

762. Cleaning out of plugs formed in pipelines with steel rods and other devices that can cause sparking is not allowed.

763. After examining or using the locking devices located in the wells, the covers of the latter must be immediately closed. Open trays after inspecting the pipes are immediately closed.

764. Locking devices must open and close smoothly; it is not allowed to use metal objects that can cause a spark to open and close locking devices.

765. To avoid the formation of an explosive mixture inside the vacuum gas collection network:

1) the air content in the vacuum network is controlled;

2) locking devices are closed and gas pipelines are plugged off when the vacuum collector branches from wells are disconnected or dismantled.

766. The design of the torch device of the candle must ensure continuity of gas combustion.

767. When laying cable lines parallel with the pipeline, the horizontal distance between them must be at least 1 meter. Cables located at a shorter distance from the pipeline are laid in pipes throughout their entire length. Parallel laying of cables above and below pipelines in a vertical plane is not allowed.

768. The loading and unloading racks shall be maintained in accordance with the procedure established in Chapter 6 of Section 4 of these Rules.

6. Maintenance of gas processing industry facilities

General provisions

769. In the areas of the plant, where accumulation of combustible vapors and gases is possible, the passage of cars, tractors, motorcycles is not allowed. These areas shall be marked with no-traffic signs.

770. Motor vehicles, tractors, hoisting-transporting and construction mechanisms may enter the territory of fire and explosion hazardous workshops and installations only with the

permission of the heads of these workshops, installations, indicating possible parking lots, movement routes and security measures.

771. It is not allowed to work in shoes with iron heel plates in explosive rooms and gas hazardous places.

772. Wheels of transport trolleys that are in explosive workshops of category A and B must be fitted with rims made of metal that does not give sparks upon impact, or rubber tires. Inspection sewage wells are kept with permanently closed lids and covered with a 10 centimeter layer of sand.

773. To prevent the spread of flames through the industrial sewerage network during a fire, hydraulic shutters must be made on it in special wells. In each hydraulic shutter, the water layer forming the seal must be at least 0.25 meters high.

774. Hydraulic shutters must be made on all outlets from rooms with technological equipment, technological installations sites, groups and stand-alone tanks, valve stations, groups of devices, pumping rooms, boiler rooms, loading racks. The design of the hydraulic shutter provides for its convenient cleaning.

775. Operation of the sewerage with faulty or incorrectly made hydraulic shutters, and also without them is not allowed.

776. Discharge of fire and explosion hazardous products into sewer systems is not allowed. For these purposes, special containers shall be provided.

777. The temperature of industrial wastewater at discharge into the sewer must not exceed 40 °C.

778. Metal blowers of ventilation systems installed in explosive industrial premises must be grounded.

779. It is not allowed to turn on the equipment in case of faulty ventilation.

780. Round-the-clock operation of ventilation is provided in enclosed spaces where equipment and communications containing flammable and explosive gases are located.

781. In industrial premises where a sudden intensive release of harmful or explosive gases or vapors is possible, mechanical emergency ventilation is provided.

782. Automatic start-up of emergency mechanical ventilation under the action of gas analyzers is provided, and, in addition, remote start of emergency ventilation is provided from buttons at the outer door of the production room.

783. In the event of a fire in the production room, the ventilation systems are switched off.

784. For heating of premises with fire and explosion hazardous productions, centralized systems are used that use hot water, steam, heated air and diethylene glycol as a heat carrier.

785. Air heating systems in the event of a fire and the threat of its spread shall be immediately switched off.

786. When air heating is combined with intake ventilation, air recirculation is not allowed.

787. Filling risers of racks for filling railway tanks are grounded. The rails of the railway tracks within the loading and unloading front are electrically interconnected and connected to a grounding device that is not connected with the grounding of the electric traction network.

788. Tankers under loading and unloading of combustible gases are connected to the grounding device. A flexible (stranded) copper wire with a cross section of at least 6 square millimeters is used as a grounding conductor.

789. Metal tips and quick-detachable devices of rubber hoses are grounded using a flexible (stranded) copper wire wound outside or inside the hose. The grounding wire at the other end is attached to the metal parts of the product pipeline.

790. Inspection of lightning protection devices shall be carried out 2 times a year. During the inspection, the resistance of the grounding device is measured.

Maintenance of processing units and installations

791. Operation of devices, pipelines and equipment is not allowed when the product passes through leaky flange connections.

792. When a leak is detected in the unit, to prevent ignition of the escaping product, water vapor or an inert gas is supplied to the place of the leak and the unit is switched off from operation or the installation is stopped.

793. Combustible surfaces of the units and containers shall be provided with serviceable thermal insulation of non-combustible materials.

794. The units to be opened for interior inspection, cleaning and repair shall be stopped, emptied of the product, disconnected and muffled from the operating equipment, steamed with inert gas products and ventilated. The duration of steaming or purging with an inert gas, flushing with water, ventilation is determined by the production instructions for each case separately.

795. The use of sampling cocks without the hot product passing through the cooler is not allowed. The outlet tubes and tubes of the cooler must be kept in good condition.

796. It is not allowed to eliminate leaks on devices and communications under pressure.

797. In industrial premises it is not allowed to carry out work related to the possibility of sparking, to use open lamps.

798. Technological devices before start-up are subject to inspection, the serviceability and readiness for operation of all associated devices and pipelines are checked, the serviceability of automatic indicators or temperature and pressure regulators, liquid level meters is checked.

799. Newly designed and reconstructed furnaces must be equipped with devices for the formation of curtains of steam or inert gas with the issuance of a signal when the curtain is turned on in the fire department.

800. Tube furnaces shall be equipped with an alarm that is triggered when the supply of liquid or gaseous fuel to the nozzles is interrupted or its pressure drops below the established parameters.

801. It is not allowed to ignite extinguished stove burners from red-hot panels or furnace lining.

802. Steam or inert gas may be used to extinguish possible fires inside the furnace. Steam or inert gas is supplied until the end of uncontrolled combustion.

803. Devices designed in case of accident or fire to drain the product shall be kept in good condition. The valves of the emergency drain lines must be marked with identification marks, with approaches to them cleared. The sequence of operations during the emergency drain is provided for by the instruction.

804. An emergency container for draining hot liquid from the furnace is kept free at all times. Before the start of the liquid descent, the water vapor, previously freed from condensate, is supplied to the emergency tank.

805. The operation of the furnace with bulges and bubbles in the pipes, and also when the permissible limits of pipe wear are exceeded, is not allowed. If the pipes burn out, the operation of the furnace shall be immediately stopped in accordance with the accident eliminating plan.

806. If there is a threat of gas contamination of the territory near the furnaces, the steam extinguishing system shall be immediately turned on, the stove nozzles are turned off and the fire service is called.

807. Operation of tube heaters with faulty twins is not allowed.

808. Pressure bolts for sealing plugs of twins are tightened only after the pressure in the pipes is reduced to atmospheric.

809. It is necessary to ensure that the double cabinets of tube heaters have serviceable, tight-fitting metal doors.

810. The site for heat exchangers must have a hard surface with a drain into a tray, with an outlet to an industrial sewer through a hydraulic shutter. The site is provided with a device for flushing combustible products.

811. The release of heat exchangers from flammable liquids both in the pipe and in the annular space is carried out only after the heat exchangers have cooled.

812. Air coolers shall be equipped with remote shutdown of fans in case of fire.

813. Opening of the hatches of column apparatus must be started from the top one.

814. The start of warning installations of technological equipment must be both manual and automatic. With automatic start, a back-up manual start shall be provided.

Maintenance of auxiliary devices and structures

815. Pipelines, depending on the substance transported through them, must have an identification color, digital designation and direction of the product movement.

816. In the event of a rupture of a gas pipeline, a product pipeline, the accident area shall be immediately cordoned off , with warning signs installed, traffic stopped in this area and measures taken to eliminate the accident.

817. If a pipeline is damaged with leakage of gas or oil products, also in the event of a fire , the fire and gas rescue services shall be called, and measures are taken to eliminate the accident.

818. Presence of dead ends on pipelines is not allowed.

819. The operation of pipelines intended for pumping explosive and flammable media in the presence of "clamps" is not allowed.

820. The loading and unloading racks shall be maintained in accordance with the procedure established in Chapter 6 of Section 4 of these Rules.

Maintenance of compressor and pumping stations

821. All blocking and signaling devices for monitoring the technological parameters of compressors and pumps shall be constantly kept in good condition.

822. To control the liquid level in the separator, an audible or light alarm shall be provided.

823. All connections of gas compressors and their gas pipelines must be systematically checked for tightness. When a gas leak is detected, the compressor is stopped and the defect is repaired. Repairing a gas leak while the compressor is running is not allowed.

824. Valve boxes and valves of air reciprocating compressors must be regularly cleaned from oil deposits and layers.

825. During the lighting devices operation or an emergency power outage in gas compressor stations, explosion-proof battery lamps may be used.

826. In the event of a threat of gas contamination or a fire in the compressor room, the compressors are stopped in an emergency, the pressure is released and the gas flow to the accident site is shut off.

827. Service tanks for oil with a total capacity of not more than a three-day supply may be put in a room with an independent exit to the outside and separated from the compressor by a fire wall.

828. Premises of compressor and pumping stations shall be provided with proper and uninterrupted operation of all ventilation devices.

829. Emergency stop buttons for stationary compressors must be available on control panels, at the exits from the compressor halls or other convenient and safe places.

830. Operation of the compressor that sparkles at the contact of the gas engine igniter is not allowed.

831. It is not allowed to check serviceability of the candle in the compressor room by sparking.

832. To prevent flashes and explosions in the exhaust system, at the compressor starting the magneto is turned on and fuel gas is supplied after purging the exhaust system with compressed air.

833. Pumps pumping fire and explosion hazardous products shall be grounded regardless of the grounding of electric motors located on the same frame with pumps.

834. When pumps are purged, the ejected product is withdrawn outside the premises, the liquid product is withdrawn through a pipeline into a special container, and vapors and gases are diverted to a torch or candle.

835. During the operation of pumps, constant monitoring of the lubrication of rubbing parts, as well as the temperature of the bearings and seals of the pumps, is carried out. Spreading and splashing of lubricants must be prevented.

Flare facilities operating

836. Flares are ignited remotely.

837. All active flares are provided with flare pilots.

838. The area around the flare within a radius of at least 50 meters must be fenced and marked with warning signs.

839. Making wells, pits and other recesses within the fenced territory of the flare is not allowed.

840. On gas pipelines, before entering the flare pipe, fire arresters are installed that are available for inspection and repair.

841. The main flare pipeline shall have a common separator located at a distance of at least 50 meters from the flare stack. Slope of the flare pipeline towards the separator is provided.

842. It is not allowed to direct to the common flare system:

1) inert gas after purging the equipment with the content of combustible gases in it in concentrations less than 50% of the lower ignition limit;

2) air displaced from apparatuses and pipelines, as well as pure inert gas;

3) products prone to decomposition, oxidation, polymerization, heat release and capable of limiting the capacity of the flare gas pipeline.

7. Maintenance of light industry facilities

General provisions

843. To control the air medium in industrial and warehouse premises where substances and materials capable of forming gas and vapor-air explosive concentrations are used, produced or stored, automatic gas analyzers shall be installed. In the absence of mass-produced gas analyzers, periodic laboratory analysis of the air medium shall be made.

844. Waste from equipment is removed by pneumatic, mechanical or other devices that ensure the safety of this operation and exclude the release of dust into the production room.

845. In the electrical circuit of equipment with autonomous systems of exhaust ventilation and (or) pneumatic conveying of waste, automatic advance of the start of these systems

relative to the start of the working bodies of the equipment by 2-5 seconds and their automatic shutdown after the stop of the working bodies with 25-30 seconds time delay are provided.

846. The territory of the facility and production areas shall be daily cleaned of combustible garbage and waste. Open storage on the enterprise territory of combustible waste , trimmings, shears, fibers, threads, dust is not allowed. To collect them, metal boxes with lids are installed at a distance of no more than 100 meters from each other. Waste is systematically removed on specially equipped vehicles and containers that prevent dusting. It is strictly forbidden to transport fibrous materials that are not covered with a tarpaulin.

847. In summertime, areas adjacent to buildings and structures, and fire breaks, shall be periodically cleared of grass. It is not allowed to dry and stack cut grass on the territory of the facility (with the exception of specially designated places).848. It is not allowed to store raw commodities, equipment and materials in the immediate vicinity of buildings.

849. If necessary, raw materials, equipment and materials are stored on specially equipped open areas or under canopies, with observance of gaps between the storage areas and buildings, structures. It is allowed to build free-standing sheds of combustible materials with an area of up to 1200 square meters.

850. For landscaping of areas, it is not allowed to plant trees that emit flakes, fibrous substances and pubescent seeds during flowering, and also to plant them in fire breaks.

851. All production facilities shall be constantly kept clean and not overloaded with raw materials, finished products and equipment. The amount of stored raw materials and finished products should not exceed the shift requirement – output (with a round-the-clock production process – daily requirement).

852. In basements and on basement floors of industrial and administrative buildings the use and storage of explosive substances, gas cylinders, celluloid, flammable film, plastics, varnishes, paints, flammable and combustible liquids, chemicals, polymeric materials with increased fire hazard (G4 , V4, DZ, TZ, T4), also installation of gas stations for singeing workshops is not allowed.

853. For workshops' storerooms, the maximum allowable amounts of one-time storage of flammable and combustible liquids, chemicals are established. Signs indicating the storage standards of substances shall be put up in prominent places, near the storerooms.

854. Combustible and flammable liquids used in production shall be stored in hermetically sealed metal containers, in an amount not exceeding the shift requirement (with a three-shift operation – daily requirement).

Maintenance of process equipment

855. The enterprises shall develop schedules of cleaning technological and electrical equipment of the main workshops, sections and installations.

856. Operating process equipment daily (in the shops of primary processing of raw materials - at least 1 time per shift), and electrical equipment, lamps, electrical wiring,

technical means of fire protection (sprinkler, deluge, fire detectors), building structures, including coatings shall be cleaned not less than once a week, of combustible dust and fluff that have settled on them. In this case, it is necessary to use means of dust removal (including blowing with compressed air) and wet cleaning. By order of the enterprise, from among the officials, persons in charge of this work are appointed.

857. Before purging and cleaning, process equipment shall be switched off.

858. All joints and connections of process equipment shall be reliably tightened, while joints and connections of air ducts in production and storage rooms are tightened only with non-combustible material or group G1.

859. Filters for cleaning the air removed from the dedusting devices of machines and units shall be installed in isolated rooms.

860. The combustible material of equipment filters shall be periodically, but no less than once a year, treated with a flame retardant.

861. It is not allowed to exceed dust concentration in the working rooms of flax-hackling, spinning-preparatory, weaving-preparatory, weaving and grading-measuring workshops.

862. During recirculation, the dusty air removed from the equipment is subjected to two-stage cleaning on the appropriate filters.

Maintenance of volatile solvents' vapors adsorption and recovery workshops

863. Places in the workshops associated with the use of volatile solvents shall be equipped with systems of local suction of vapors with their supply to traps.

864. The recovery unit must provide continuous and complete suction of volatile solvent vapors from all workplaces.

865. It is not allowed to connect new workplaces, sections and workshops to air-vapor mixture lines, if the recovery station capacity does not permit it.

866. Concentration of the air-vapor mixture supplied to the adsorbers shall be systematically controlled. Permissible parameters of the air-vapor mixture are indicated in the technological instructions. Operation of air-vapor lines with concentrations of trapped vapors above 50% of the lower concentration limit of ignition of the most flammable substance of the mixture is not allowed.

867. The lines through which the air-vapor mixture is transported from the workshops to the recovery station shall be kept in good condition. Contamination of the inner surface of pipelines with solid combustible deposits or liquid condensate is not allowed. Filters or cyclones for trapping solid impurities from air-steam mixture shall be operated in good condition and cleaned according to approved schedules. Sections of the line where condensate formation is observed must be provided with serviceable insulation from non-combustible material and a slope for condensate draining.

868. Air-steam mixture lines shall be protected by serviceable flame arresters. The number of flame arresters, their type and dimensions of the fire extinguishing nozzle are

taken in accordance with the design data. It is not allowed to operate the unit without fire arresters or with fire arresters that do not comply with the design.

869. Audible alarm for emergency operation of the fans and the system for automatically switching on the standby units shall be kept in good condition and are periodically checked.

870. An emergency pipe for ejection of an explosive and fire hazardous air-vapor mixture into the atmosphere shall be kept in good condition. Its readiness for work is systematically checked. The emergency pipe must be equipped with lightning protection.

871. The explosion protection level and protection degree of the shells of electric motors of fans shall correspond to the class of the explosive zone of the room in accordance with the electrical installations Rules.

872. The fire extinguishing system of adsorbers shall be kept in good condition and controlled at least once a week.

Measures to prevent formation of ignition sources in combustible medium

873. Technological lines, machines and apparatuses making primary processing of fibrous materials, solid combustible substances in a crushed (powdered) form shall be provided with serviceable devices for trapping (separating) foreign objects (stone traps, magnetic protection) .

874. The surfaces of pipelines, equipment, containers, product pipelines, having an outer surface temperature above 45 °C, shall be provided with serviceable, low-combustible thermal insulation lined with non-combustible material in the premises where a danger exists of ignition of materials or explosion of gases, vapors of liquids or dust.

875. The technological equipment, during the operation of which the accumulation of static electricity charges is possible, shall be used only with serviceable antistatic devices, and , if necessary, neutralizers (radioisotope, high-voltage, induction).

876. Apparatuses, containers, aggregates where products are crushed, frayed, loosened, carded, sprayed, sprinkled, stand-alone machines, apparatuses, aggregates not connected by material conduits or metal structures to other equipment shall be provided with serviceable grounding.

877. In flange connections on pipes, apparatuses, connections of covers with cases and connections on bolts, washers painted with non-conductive paints or made of dielectrics are not allowed.

878. The use of machines and equipment with internal combustion engines inside production and storage facilities is not allowed.

879. Periodically, at least once a shift, shafts and bearings shall be checked to prevent their heating and skewing.

880. Electric wires within the equipment shall be protected from aggressive media. Metal hoses are fixed on the fixed parts of the equipment with special brackets no more than 400 millimeters apart.

881. Special flexible cables with copper conductors, resistant to repeated kinks and abrasion, or movable current collectors for powering electric motors, electric apparatuses and devices installed on moving parts of equipment, shall be kept in good condition.

882. During the operation of machine tools, assemblies and machines, the following shall be ensured:

1) free rotation of all moving parts;

2) regulation of the air regime in the aspiration channels during the aerodynamic cleaning of raw materials and elimination of dust emission in the room;

3) balance of rotating parts masses in accordance with the manufacturer passport data.

883. The operation mode of the facility and workshop installations (systems) of ventilation and pneumatic transport is determined by the work instructions, which provide (in terms of production conditions) fire safety measures, timing of cleaning air ducts, filters, fire dampers and other appliances, also actions of the maintenance personnel in case of fire or accident.

884. Scheduled preventive maintenance of ventilation and pneumatic conveying installations shall be included in daily inspection, timely lubrication of bearings, checking the condition of pulleys and tension of drive belts, eliminating play of the fan shaft, reliability of contacts at the connection points of wires to electric motors, and the state of electrical protection. All installations shall be checked after each repair by a person in charge appointed by the head of the facility, with measurements of indicators for their compliance and a mark in the passports.

885. Pneumatic transport pipelines and exhaust air ducts shall be provided with windows, hatches, collapsible connections (revisions) for periodic inspection, cleaning of systems and successful extinguishing of a fire, if it happens. Inspection windows shall be distanced no more than 10 meters apart, as well as at tee-fittings, at turns, when pipelines pass through walls and ceilings.

886. The fan wheel shall be balanced and adjusted so that the wheel does not hit the casing walls.

887. In case of detected faulty operation of the ventilation unit removing fluff and dust from the machine (cessation of air draft, fan knocking, sparks, smoke or smell), measures shall be immediately taken to stop the fan and repair it.

888. The inner surfaces of aspiration devices and pneumatic transport systems must be smooth, without protrusions and burrs.

889. When servicing and operating ventilation, aspiration and pneumatic conveying installations (systems):

1) it is not allowed to accumulate dust and fluff in the air ducts of pneumatic and aspiration systems, dusty cells, chambers and filters, they must be cleaned regularly according to the approved schedule. The examination and cleaning results are reflected in a special log;

2) combustible deposits on the inner surface of umbrellas and exhaust pipes are cleaned at least 2 times a year;

3) in case of faulty dust extraction and dust collection devices, the operation of technological equipment is not allowed;

4) unauthorized persons shall not be admitted to dust cells (dust cellars);

5) in the event of ignition or a fire, all ventilation installations and technological equipment located in the service area of these ventilation systems shall be immediately stopped (turned off), and all valves on the air ducts shall be closed;

6) all exhaust pipes entering into common dust chambers or the cell from individual installations transporting combustible dust or waste shall be equipped with automatic valves, and their trouble-free operation is ensured.

890. In industrial premises where ventilation units transport combustible and explosive substances, all metal air ducts, pipelines, filters and equipment of exhaust units shall be grounded at least in two places.

891. The design and material of fans that also regulate other devices of ventilation systems for rooms, whose air may contain flammable or explosive substances (gases, vapors, dust), shall exclude the possibility of sparking.

892. Automatic fire-retarding devices (shovel plates, gates, valves) of air ducts installed at the intersections of fire barriers shall be kept in good condition, with their performance checked at least once a month.

893. When operating fire-retarding devices in the ventilation system:

1) their general technical condition is checked at least once a week;

2) the sensitive elements of the valve drive (fusible locks, easily combustible inserts, temperature-sensitive elements) are timely cleaned from contamination with combustible dust ;

3) serviceability of manual fire dampers on the branches of the air ducts serving one machine or a group of machines of the preparatory department, at the point of connection to the main collection air duct, is constantly checked;

4) at least once a week, the serviceability of remote devices of turning on or off the ventilation installations servicing fire and explosion hazardous premises is checked.

894. It is not allowed to operate tanks for gravitational dust settling (aspiration shafts, dust settling chambers) placed after fans and blowers.

895. Organic glass inserts installed in pneumatic conveying installations are wrapped around the outside with wire with coil pitch of no more than 100 millimeters. Both ends of the mentioned wire are securely attached to the metal parts of the installation, with an insert between them. Touching of the air ducts of aspiration installations and pipelines of engineering networks is not allowed.

896. Magnetic protection:

1) to prevent solid objects (stones, slag) from getting into fans, condensers and technological equipment with a mass of fibrous materials, stone traps are installed in front of them, and magnetic traps are installed to extract metal objects. Traps are placed where pipelines turn from a vertical (inclined) position to a horizontal one;

2) equipment for trapping magnetic impurities (magnetic barriers) shall be installed in accordance with the design documentation;

3) magnetic barriers are installed in front of scutching, carding machines, mixers and ancillary department equipment;

4) during the operation of electromagnetic separators, the heating of parts (magnetic circuit, bearings, parts in contact with raw materials) shall be controlled;

5) uniform operation of the scraper mechanisms of electromagnetic separators and complete removal of magnetic impurities without manual cleaning shall be ensured;

6) uninterrupted operation of the light signaling of electromagnetic separators shall be ensured;

7) in magnetic columns, an easy removal of a block of horseshoes is provided to clean them from magnetic impurities. At the same time, the ingress of magnetic impurities into the raw material is excluded;

8) special brushes or wooden scrapers must be used to clean magnetic columns from metal impurities;

9) equipment for trapping magnetic impurities must be provided with free access for their maintenance and examination;

10) control of the state of magnets shall be carried out at least once a month;

11) it is not allowed to supply the product to the electromagnets of the separators when the power supply is interrupted;

12) maintenance personnel shall systematically check the uninterrupted and uniform flow of raw materials along the entire length of the magnetic field into electromagnetic separators and magnetic columns.

897. If ignition (spontaneous combustion) of raw materials, production waste, industrial dust, finished products is detected, it shall be immediately reported to a non-state fire service or a voluntary fire-fighting formation of the facility and a state fire service division. Measures shall be taken to evacuate maintenance personnel, all equipment is stopped and de-energized, the management of the facility is notified.

898. If dangerous pre-accident factors (the smell of heated raw materials, burning, smoke, elevated temperature, noise, vibration arising from emergency friction of rotating machine parts, breakdown of machine parts, foreign objects penetrating the equipment, blockage of the machine with the product) appear, all transport equipment shall be stopped and carefully checked. It is launched only after identifying and eliminating the causes of the faults.

899. In the event of an automatic (emergency) stop of the technological (transport) line, the device that issued the signal for blocking actions (speed control relay, raw material

overpressure sensor, current protection against overloads of the electric motor drive) is determined, the cause of its operation is established and eliminated. Before the next start, the technological (transport) line is freed from materials and the malfunction is eliminated.

900. Upon detection of a burning (smoldering) product in technological, transport or aspiration equipment, it shall be immediately stopped, of which the head of the workshop, the head of the facility and the non-state fire service are immediately notified. At the same time (if necessary), all production equipment and ventilation units are stopped at this site, the ventilation ducts are blocked, and the power grid is turned off.

901. After elimination of the fire sources, it is not allowed to turn on ventilation and pneumatic transport installations until all air ducts, filtration chambers, dusty chambers (dusty cells), as well as technological machines have been thoroughly cleaned.

902. It is not allowed to extinguish fires with compact directed water jets of dust-like production waste.

8. Maintenance of agricultural production facilities

Maintenance of core production facilities

903. Premises intended for the placement of vacuum pumps and heat generators for the preparation of fodder with fire heating, as well as premises for storing roughage stock, attached or built into livestock and poultry buildings, shall be separated from the premises for livestock and poultry by fire walls and separations. These premises must be provided with exits directly to the outside.

904. It is not allowed to accommodate workshops, warehouses, parking lots for vehicles, tractors, agricultural machinery in premises for animals and poultry, and also to perform any work unrelated to the maintenance of farms.

Entry into these premises of tractors, cars and agricultural machines, whose exhaust pipes have no spark arresters, is not allowed.

905. On commercial dairy farms (complexes), that keep 20 or more cattle heads, a group tethering method must be used.

906. In the attics of farms storing roughage:

1) the roof must be made of non-combustible materials;

2) wooden attic floors and combustible insulation must be protected against fire from the attic spaces with 3 cm thick clay coating on combustible insulation (or equivalent fire protection) or non-combustible insulation;

3) electrical wiring in the attic shall be protected from mechanical damage;

4) chimneys must be fenced around the perimeter at 1 meter distance.

907. When installing and operating electric brooders:

1) the distances from the heating elements to the bedding and combustible objects must be made vertically at least 80 centimeters and horizontally at least 25 centimeters;

2) only factory-made heating elements may be used and arranged in a way to exclude the possibility of hot particles fallout. The use of open heating elements is not allowed;

3) they are provided with electricity through independent lines from the switchboard. Each brooder must have an independent switch;

4) the switchboard must be equipped with a switch to de-energize the entire electrical network, as well as a protection device against short circuit, overload;

5) the temperature regime under the brooder is maintained automatically.

908. Mobile ultraviolet installations and their electrical equipment shall be located at a distance of at least 1 meter from combustible materials.

909. For electric brooders' internal electrical network and ultraviolet installations cable or insulated wire must be used. Insulated wire is laid in pipes or on anchors with insulators, at a height of at least 2.5 meters from the floor level and at a distance of 0.1 meters from combustible structures.

910. The gasoline engine of the shearing station must be installed on a site cleared of grass and debris at a distance of 15 meters from buildings. Fuels and lubricants are stored in a closed metal container at a distance of 20 meters from the shearing station and buildings.

911. It is not allowed to accumulate wool at the shearing site above the shift output and block the passage and exit with bales of wool.

912. At night, livestock and poultry premises with livestock and poultry in them must be under the supervision of watchmen, cattlemen or other persons designated for this purpose.

913. Ammonium nitrate must be stored in independent I or II fire resistance degrees atticless single-story buildings with non-combustible floors. In exceptional situations, it is allowed to store ammonium nitrate in a separate compartment of the general warehouse of mineral fertilizers of a farm business of I or II fire resistance degrees. Strong oxidants (magnesium and calcium chlorates, hydrogen peroxide) shall be stored in separate compartments of buildings of I, II and IIIa fire resistance degrees.

914. When farms and other agricultural facilities are located near coniferous forests, between buildings and forest areas for the spring-summer fire hazard period, protective firebreaks shall be made with the help of bulldozers, plows and other tillage tools(if it is economically expedient, planting fire-resistant plants - potatoes, lupine, sweet clover).

915. On the territory of agribusinesses (if this is not related to the technology of this agricultural production area), also in places of storage and processing of cotton, flax, hemp and other combustible materials, the use of open fire (bonfires, torches) is forbidden.

Agricultural output processing

916. For the clearing of sacks from flour and their storage, isolated rooms shall be provided with the installation of a sack beater.

917. At bakeries, bulk storage of liquid fat and vegetable oil shall be provided in a separate room.

918. For the furnaces of conveyor cradle-podik dead ends of bakery ovens operating on solid fuel, premises shall be provided, with fire-fighting partition (with a fire door) and a cover.

919. It is admissible to stock solid fuel supply in the furnace for no more than one shift.

920. When bakeries run on liquid fuel, outside the building an isolated room made of non-combustible structures shall be provided for the installation of liquid fuel supply tanks.

921. Doors to industrial premises with simultaneous presence of less than 15 people at elevators, flour mills, feed mills and cereal plants must open inside (against the evacuation course). At the same time, the doors of vestibule locks must open in different directions (doors from the production premises to the vestibule locks opposite the evacuation course, doors from the vestibule lock to the stairwells - along the evacuation course).

922. Openings of fire walls for the passage of belt conveyors shall be equipped with automatic fire safety valves or devices to shut them off in the event of a fire.

923. It is not allowed to lay air ducts, material ducts, flow pipes through household, utility and administrative premises, premises of control panels, electrical distribution devices, ventilation chambers and stairwells.

924. Installation of cyclones on the side facing the chimneys of grain dryers and boiler rooms is not allowed.

925. In cable chambers it is not allowed to install elevators, lay flow and exhaust pipes, as well as other transporting and processing equipment.

926. All floors of granaries, grain processing enterprises shall be provided with inter-communications between the floors and workshops (telephones, voice pipes, calls).

927. In bulk loading of products and waste onto motor vehicles a device shall be provided preventing dusting of the territory, or loading is carried out in a closed room.

928. Waste must be removed from the enterprise territory in specially equipped vehicles such as feed trailers.

929. At feed mills, places for unloading mealy stocks and bran from railway and road transport must be equipped with aspiration to prevent dust formation.

930. Tight connection of hatches for silos and bunkers, as well as hatches in flow pipes, air ducts and aspiration casings are necessary that prevent dust penetration into the premises.

931. All warehouses must have outside attached ladders distanced no more than 100 meters apart.

932. Before starting work, grain cleaning and threshing machines are adjusted to the air mode in the aspiration channels, which ensures high-quality aerodynamic cleaning of grain and excludes the release of dust into the room. The explosion vents above the machines shall be kept in good working order.

933. Bucket elevators the capacity of more than 50 tons / hour shall be provided with automatic brake devices protecting the belt from reversing when it stops. It is not allowed to install elevators and individual parts made of wood or other combustible materials.

934. Grain augers for unpeeled grain must be equipped with gratings to trap large impurities and with safety valves that open under product pressure.

935. The frequency of cleaning gratings is established by the head of the enterprise.

936. The tension of the belts of all V-belt drives must be the same. It is not allowed to work with an incomplete set of V-belts or use belts with a profile that does not match the profile of the pulley grooves.

937. V-belts are replaced with a complete set for this transmission.

938. Passports for installations are compiled by installation or specialized commissioning organizations.

939. Passports for all aspiration installations after each repair shall be checked by an aspiration engineer or another person in charge assigned by the enterprise management.

940. Blowers and fans of aspiration and pneumotransport installations of premises and buildings of fire hazardous category (B1-B4) shall be installed after dust collectors (air movement-wise).

In pneumatic transport systems at flour mills on complete high-performance equipment, it is allowed to install dust exhaust spark proof fans before filters.

941. It is not allowed to combine the aspiration of containers for collecting and storing dust and operational (production) containers into one aspiration installation with technological and transport equipment.

Dust collection and storage tanks are aspirated by a separate installation. The aspiration of operational containers may be combined into one aspiration unit with equipment that does not have rotating parts, such as bulk trays, revolving pipes.

942. Technological and transport equipment must be blocked with aspiration plants.

943. Placement of fans and dust collectors of grain dryers in working buildings of elevators is not allowed.

944. At elevators, it is not allowed to collect and store aspiration sediments and industrial dust in bunkers and silos located in industrial premises.

945. Laying of transit air ducts through the premises of warehouses for raw materials and finished products, as well as through premises of A, B and C 1-4 explosion and fire hazard categories is not allowed.

946. Operation of tanks for gravitational dust settling (aspiration shafts, dust settling chambers) located after fans and blowers is not allowed.

947. Air ducts and material ducts must be grounded in at least two places.

948. Dust collectors and blowers shall be separately grounded additionally. It is not allowed to use screw washers made of dielectric materials and washers painted with non-conductive paints in the connections between the elements of the installations.

949. Plexiglas inserts installed in pneumatic transport installations must be wrapped from the outside with wire with coil pitch of no more than 100 millimeters. Both ends of the

specified wire must be securely attached to the metal parts of the installation, with an insert between them.

950. Contact of air ducts of aspiration installations with pipelines of the heating system is not allowed.

951. To ensure fire safety during the operation of process and transport equipment:

1) for exclusion of dust release into the production premises, the equipment must be pressurized taking into account the manufacturers' recommendations and, if necessary, aspirated;

2) equipment, containers, product pipelines with an outer surface temperature above 45°C must be thermally insulated;

3) rolling and sliding bearings are provided with lubrication in accordance with the operating instructions;

4) normal tension of drive belts and conveyor belts, bucket elevators and other transporting machines, as well as transmissions is ensured, excluding their towing and sagging, and also the impact of an empty branch on the barrier and friction on the guards.

952. The machine should be stopped at:

1) the slightest signs of ignition or burning;

2) appearance of noise and vibration uncharacteristic for the equipment;

3) blockage, lockup and overload of the machine with the product;

4) breakdowns of the supporting structure, pulley, gear or other working body of the machine;

5) ingress of foreign objects into the working bodies.

953. It is not allowed to operate the equipment without normally operating aspiration systems, without explosion vents on bucket elevators and crushers, provided for by design and technical specification.

954. Before running products (raw materials) through roller mills, crushers, beaters and impact machines, magnetic separators must be installed.

955. During the cleaning of magnets, the possibility of metal impurities ingress into the product should be excluded.

956. Nodes of equipment attachment to supports, casing and other equipment elements must be disassemblable, enabling installation, repair and dismantling of equipment without hot works in the production room.

957. Doors, lids and hatches designed for operational control of the equipment operation shall be tightly closed without letting dust into the room.

958. During the operation of grain cleaning and grinding machines, the following shall be provided:

1) free rotation of all moving parts, preventing the latter from touching the surface of stationary parts;

2) regulation of the air regime in the aspiration channels for a normal operation of the machine during aerodynamic cleaning of grain and elimination of dust emission into the room ;

3) balance of the rotating parts masses in accordance with the manufacturer's passport data.

959. Cracks and breaks in scourers of scouring machines are not permissible. To avoid sparking, it is not allowed to touch the inner surface of the beater cylinder with vanes.

960. When using bucket elevators, the following shall be checked:

1) reliability of installation of fasteners (bolts, screws, washers);

2) tension of the elevator belt, excluding slippage on the drums and grazing of the belt and buckets on the elevator pipes and the casing of the head and boot;

3) mandatory presence of a speed control relay and pressure sensors on the elevator drum boots;

4) mandatory availability of automatically operating braking devices for elevators with a capacity of 50 tons / hour and above, protecting the belt from reversing in case of sudden stops of elevators.

961. During the belt conveyors operation, the following shall be provided:

1) mandatory presence of a speed control relay;

2) normal operation of the conveyor belt without running to the side on drums and rollers and without touching the supporting structures;

3) rotation of the rollers without slipping of the tape along them;

4) slipping of the tape on the drums is inadmissible.

962. On chain conveyors (with submersible scrapers), installation of overpressure sensors or ring switches shall be provided, which automatically stops the conveyor when the boxes are full.

963. To prevent ignition of the augers, safety valves must be installed at their ends along the course of the product, which open under the pressure of the product.

964. Splicing of conveyor belts and drive belts with the help of metal brackets, bolts is not allowed (they are connected using combustible vulcanization, by belt lacing).

Feed mills equipment operation

965. If crushers are provided with automatic load control device, it must be interlocked with the electric motor of the crusher.

966. Cracks and other defects in crusher hammers are not allowed.

967. It is not allowed to touch the deck and sieve of hammers of crushers in order to avoid sparking.

968. The crushers can be launched only after a thorough check of the absence of foreign objects and crushing products in them. Before starting the crusher, it is necessary to check the completeness, fastening and connections of the rotor hammers and integrity of the sieves.

969. When malfunctions happen, the crusher shall be stopped immediately to eliminate the malfunction causes. At start-up, the crusher is started at idle mode, and then its loading is brought to the required one.

970. Before starting the granulator, the following shall be checked:

1) the presence and condition of magnetic protection to prevent metal objects from entering the granulator;

2) absence of foreign objects in the machine, serviceability of mechanisms and devices.

971. Only factory-made safety pins can be used for granulators.

It is not allowed to replace them with metal rods with indefinite dimensions and mechanical characteristics.

Flour and cereal mills operation

972. During the operation of rolling machines, the following shall be provided:

1) smooth operation of the mechanism (for roller machines with automatic control), as well as good condition of the light signaling;

2) continuity and uniformity of grain or product supply along the entire length of the rollers.

973. It is not allowed to operate machines without a product, with pressed rollers, a skew and their displacement along the axis.

974. Only flexible joints of the bodies of sieve shakers, stone collectors, separators may be used, made of dust-proof materials, having a secure connection with the outlet pipes.

975. Fastening of radial or longitudinal scourges to the shaft and sockets in the beating, scourging and brushing machines must be provided to exclude the possibility of their separation.

976. It is not allowed to start hulling machines with removed heads, faulty tensioners, loose abrasive discs or without drying wheels.

977. Cracks and damages on disks, rolls and decks of hulling and grinding machines are inadmissible. In their presence, as well as in case of imbalance, the operation of hulling machines is not allowed.

978. Working gap and installation of the drum of the roller deck machine shall be controlled.

979. Blocking of electromagnetic separators shall be ensured, excluding supply of the product to the electromagnets in the event of power outage.

Maintenance of bakeries

980. The fuel to stoves run on liquid fuel shall be supplied from service tanks located in separate rooms outside the furnace compartment.

981. Ignition and operation of stoves shall strictly comply with the instructions approved by the enterprise management.

982. Explosive safety valves shall be installed in the upper parts of the furnaces and gas ducts of channel ovens, with minimum area of a single-explosive valve of 0.05 cubic meters.

983. Stoves shall be equipped with ventilation devices for the removal of heat and gaseous substances. Cleaning of exhaust ventilation shafts is carried out according to the schedule approved by the enterprise management.

984. The stoves running on gaseous or liquid fuels shall be provided with devices automatically shutting off the fuel supply in emergency situations:

1) stoppage of liquid fuel supply to the furnace and air to the combustion devices (for stoves running on liquid fuel);

2) exceeding the permissible temperature of heating gases in the heating system;

3) stop of the conveyor.

985. Ovens shall be provided with a backup manual drive mechanism for unloading of baked products in emergency cases.

986. When the stove is not fully loaded, the temperature regime shall be monitored; overheating of the stove and leaving it unattended to before all the products are out is inadmissible.

987. Every shift, the conveyor (cradles) of the oven shall be cleared of crumbs.

988. The machine for cleaning bread pans and sheets shall be provided with a device for collecting particles and dust.

Lubricator is provided to prevent grease splashing.

Calcination (annealing) of metal molds and sheets is allowed only in stoves specially designed for this purpose. In production stoves, annealing (calcination) of molds is not allowed.

Maintenance of technological processes

989. The equipment must be used in accordance with the requirements of the technological scheme for performance and purpose.

990. A speed control relay shall be installed on the end rollers of the rotary valve or groups of valves of dischargers from the internal pneumatic transport (this requirement does not apply to rotary valves of a set of high-performance equipment).

991. Acceptance and storage of non-grain products (oil cakes, press cakes, granulated grass flour) in silos and bunkers of grain elevators is not allowed.

992. Corn in grain is dried only in shaft dryers installed outside the building.

993. When storing corn grain, its minimal movement is required.

994. Rice, millet, buckwheat husks must be stored in bunker-type warehouses with a capacity for 1-2 days of operation of a groats mill.

Storage of husks in open areas, under a canopy is not allowed.

995. From the batches of oil cakes received by the enterprise, the laboratory shall take samples and selectively control residual gasoline.

Loading oil cakes with the smell of gasoline is not allowed.

996. All silos in which grain, oil cakes and press cakes are stored must be provided with remote temperature control installations (stationary thermometry systems).

997. The storage temperature of cakes and meals shall be determined daily.

998. The temperature during storage of oil cakes and press cakes shall not exceed the outside air temperature by more than 5 °C.

999. The moisture content of the oil cakes accepted for storage and stored must be within the limits established by the temporary instruction for the storage of cakes and meals at feed mills.

1000. Oil cakes and press cakes with a higher temperature and humidity are processed first, in other cases, the order of processing oil cakes and press cakes should be established depending on the receipt at the enterprise.

1001. Periodic movement of oil cakes, press cakes and other mealy products, prone to spontaneous combustion is provided from the containers in which they are stored to empty ones. These movements must be on the schedule developed by the chief technologist of the plant or the head of the technological laboratory based on the permissible periods of continuous storage of raw materials in bunkers and silos.

1002. If a rise in temperature associated with signs of spontaneous combustion is found in granulated grass or feed flour stored in bulk, the temperature in this batch shall be checked daily. These batches of flour are off-loaded first.

1003. Gravity-flowing, mechanical (elevators, chain conveyors, belt and rollerless conveyors in closed casings) transport and pneumatic transport must be used for transportation of production waste, excluding dust emission into the premises.

1004. To store and ensure the release of caked products, special design solutions for silos (bunkers) and unloading mechanisms are used to facilitate the release.

1005. In fire hazardous rooms of category B1-B4, it is not allowed to put production waste into containers.

Harvesting of grain crops and forage conservation

1006. Before the harvesting start, all persons involved in it shall undergo fire-fighting training, and harvesting units and vehicles shall be provided with primary fire extinguishing appliances (combines of all types – with two fire extinguishers, two bayonet shovels and two brooms, tractors – with one fire extinguisher, one bayonet shovel), and they shall be equipped with serviceable spark arresters with their power supply, ignition and lubrication system regulated.

1007. Before the grain crops ripen, in places where they are close to forests, steppe belts, roads and railways, they are mowed and plowed over with a strip of at least 4 meters wide.

1008. Grain crops harvesting begins with a breakdown of grain massifs into plots of no more than 50 hectares. Between the plots, at least 8 meters-wide swaths are made. Mowed grain shall be immediately removed from the swaths. In the middle of the swaths, at least 4 meters-wide plowing must be made.

1009. Temporary field camps must be located no closer than 100 meters from grain massifs, grain yards. The sites of field camps, grain yards are plowed with at least 4 meters-wide strip.

1010. In the immediate vicinity of grain tracts under harvesting with an area of more than 25 hectares, a tractor with a plow must be available to plow the burning zone in case of fire.

1011. Grain yards must be located no closer than 50 meters from buildings and structures, and 100 meters from grain tracts.

1012. In the field, petroleum products storage and refueling shall be carried out on special sites cleared of dry grass, combustible debris and plowed with a strip of at least 4 meters wide , or on a plowing at a distance of 100 meters from grain yards, stacks of hay and straw, grain massifs and not less than 50 meters from buildings.

1013. During the harvesting of grain crops and forage, the following is forbidden:

1) operation of tractors, self-propelled chassis and vehicles without hoods or with open hoods;

2) the use of blowtorches to burn out dust in engine radiators;

3) refueling of vehicles at night in the field.

1014. Engine radiators, shafts of beaters, straw feeders, conveyors and pickers, augers and parts of harvesters must be promptly cleared of dust, straw and grain.

1015. Works on burning grass vegetation, crop residues, straw by the heads of agribusinesses (farms) (hereinafter - agricultural burning) shall be carried out in compliance with the following fire safety measures:

1) before the start of the agricultural burning, employees, as well as participants in this work must undergo an instruction in fire safety and fire extinguishing measurers;

2) for the agricultural burning duration responsible persons must be appointed;

3) in the case of agricultural burning in areas adjacent to forest areas, forest owners must be notified a day before the work;

4) at the agricultural burning sites, patrol posts must be set up, equipped with fire extinguishing appliances - one fire truck or adapted equipment, one tractor with a plow, fire extinguishers, shovels;

5) before starting, the territory of agricultural burns is plowed with a strip of at least 8 meters wide and divided into plots of no more than 25 hectares;

6) forest areas, forest outliers, shelterbelts and plantings of greenery adjacent to the burnt areas are plowed around to a width of at least 8 meters;

7) agricultural burnings are carried out with a wind force of not more than 3 (5 meters per second), in plowed areas under the control of persons in charge and workers;

8) to prevent rapid spread of fire, the agricultural burning must be started on the windward side;

9) at the end of the agricultural burning, a thorough examination of the scorched area perimeter is ensured, identification and elimination of all places of smoldering and combustion sources, setting up guards for 3 hours to prevent a possible resumption of burning .

Preparation and storage of vitamin herbal flour

1016. Units for the preparation of herbal flour shall be installed under a shed or indoors. Structures of sheds and rooms made of combustible materials must be treated with flame retardants.

1017. Fire breaks from the grass flour preparation sites to buildings, structures and tanks with fuel and lubricants must be at least 50 meters, and to open roughage warehouses - at least 150 meters.

1018. The service fuel tank is installed outside the unit. The fuel lines must be equipped with at least two valves (one at the unit, the other at the fuel tank).

1019. Electrical equipment and wiring of the units and premises (sites) where they are installed must be made as for class II-IIa fire hazardous zones according to the Electrical Installation Rules.

1020. If a product is found to be burning in a dryer drum, the product prepared before the fire in the amount of at least 150 kilograms and the first product obtained after the fire is extinguished in the amount of at least 200 kilograms shall not be placed in a common storage, but put separately in a safe place and stored under supervision at least 48 hours.

1021. Prepared and bagged flour shall be kept under a canopy for at least 48 hours to reduce its temperature.

1022. Flour shall be stored in a separate warehouse or compartment separated by fire walls and covers and having reliable ventilation, and separately from other substances and materials.

1023. Ingress of moisture into the warehouse is inadmissible. It is not allowed to store flour in bulk.

1024. Sacks of flour are stacked in stacks no more than 2 meters high, two sacks in a row. The aisles between the rows must be made at least 1 meter wide, and along the walls - 0.8 meters.

1025. To avoid spontaneous combustion of stored flour, its temperature shall be periodically controlled.

Primary processing of flax, hemp and other industrial crops

1026. Premises for processing flax, hemp and other industrial crops (hereinafter - flax) shall be isolated from the engine room.

1027. The exhaust pipes of internal combustion engines shall be equipped with spark arresters. A fire-fighting cutting must be made at the outlet of pipes through combustible structures.

1028. Raw flax (straws, trusts) must be stored in stacks, sheds (under canopies), closed warehouses, and fibers and tow - only in closed warehouses.

1029. During the primary processing of industrial crops, the following is forbidden:

1) storage and threshing of flax on the territory of farms, repair shops, garages;

2) entry of cars, tractors into production facilities, finished products warehouses and sheds . Cars must stop at a distance of at least 5 meters, and tractors - at least 10 meters from the indicated buildings, stacks and sheds;

3) stove heating in the scutching workshop.

1030. Autos, tractors and self-propelled vehicles entering the territory of a flax processing point shall be equipped with serviceable spark arresters.

1031. Access of vehicles at the approach to ricks (stacks) is provided by the side opposite to the direction of exhaust gases exit from the exhaust systems of engines.

1032. On the territory of the flax processing site, smoking areas shall be located at a distance of at least 30 meters from production buildings and finished products storage areas.

1033. Roofs of flax primary processing buildings must be made of non-combustible materials.

1034. Natural drying of trusts must be in specially designated areas.

Artificial drying of trusts is possible only in special dryers, rigs (barns).

1035. Dryers located in industrial buildings must be separated from other premises by type 1 fire barriers.

Combustible structures of separate buildings of dryers and drying chambers must be plastered on both sides.

1036. Stationary dryers shall be used for drying trust only under the following conditions:

1) the vault and the inner surfaces of the walls of the furnace and cyclone are made of burnt bricks, and the outside of the stove is plastered and whitewashed with lime;

2) air ducts are protected from the outside with a 50 mm layer of non-combustible thermal insulation, with non-combustible gaskets installed at the joints;

3) temperature of the heat carrier in the fan body is controlled by a thermometer in a metal frame;

4) a spark arrester is installed at the head of the underground distribution channel;

5) the walls of the channels are made of brick, covered from above with reinforced concrete slabs or other non-combustible structures;

6) at the chimney penetration place through the roof sheathing, a fire-fighting cutting the size of at least 50 centimeters is provided.

1037. The ovens in the straw drying barns must be built in a way to exclude sparks escaping into the room.

In rigs and dryers, grates may not be put above the oven for laying flax on. The distance from the stove to combustible structures is assumed to be at least 1 meter. The grates on the side of the oven must have a fence up to the ceiling height.

1038. In dryers and rigs:

1) the temperature of the heat carrier during the trust drying must be set at no more than 80 °C, and when drying the heads - no more than 50 °C;

2) complete combustion of fuel is ensured in the furnace, and sparks and unburned fuel particles are excluded in fuel gases;

3) the fan is turned off not earlier than one hour after the start of the furnace fire. Heat carrier with signs of smoking is inadmissible in the drying chambers;

4) after one shift of the dryer operation, ash is removed from the furnace space, sediment chambers, cyclone-spark arrester and mixing chamber. Chimneys are cleaned at least 10 days after the dryer operation;

5) cleaning of trays and drying chambers from fallen trusts and various wastes each time before loading new trusts for drying. Storage of trust stock and flax fiber in the dryer room is not allowed;

6) after loading the trust into the rig, the stems fallen and hanging from the grate are removed, the oven, walls, and floor are thoroughly cleared of the trust. Storing trusts close to the dryer building is not allowed.

1039. The room of the scutching unit must be provided with ventilation, with umbrellas fitted at each scutching unit. Machines are closed from all sides with removable and folding shields that prevent dust spread throughout the room.

1040. Ventilation pipes must be equipped with valves (gates) installed before and after the fans. They must be freely accessible.

1041. The number of trusts in the production premises in excess of the shift requirement is not allowed. Warehousing is provided in piles no closer than 3 meters from the machines.

Finished products shall be removed from the premises to the warehouse at least 2 times per shift.

1042. Daily, at the end of the working day, the scutching workshop shall be carefully cleared from fiber, dust and shives. Machine tools, walls and internal surfaces of the workshop covering and shive collectors are cleaned.

1043. In tobacco dryers, racks and shelves shall be made of non-combustible materials. In fire dryers, metal visors are arranged above the flame tubes to protect them from tobacco ingress.

Outdoor spotlight poles of tobacco sheds and dryers must be outdoors.

Order of collecting, transporting, drying, storing and primary processing of raw cotton

1044. Before cotton harvesting start, all persons involved in it shall undergo fire safety training, and cotton pickers, tractors, cotton transport vehicles shall be equipped with primary fire extinguishing appliances(cotton pickers - two fire extinguishers, two bayonet shovels and one 2x2 meters fire blanket, tractors, cars - one fire extinguisher, one bayonet shovel), serviceable spark arresters and adjusted power, ignition and lubrication systems.

In case of oil, fuel and emulsion leakage from the hydraulic system, as well as absence of spark arresters, agricultural machines are not allowed to harvest and transport cotton.

1045. Before raw cotton ripening, the fields in the places adjacent to forests, steppes, tugai massifs, roads and railways shall be mowed and plowed over with a strip of at least 4 meters wide.

1046. When harvesting cotton, it is not allowed:

1) to smoke and use an open fire in a cotton field;

2) leave in the field, refuel a cotton picker with a bunker filled with raw cotton;

3) operate cotton pickers with a faulty hydraulic system and electrical equipment;

4) parking of cotton pickers at the cotton drying sites.

1047. During bulk transportation, raw cotton must be covered with tarpaulin. Slots are not allowed in the floor of the car body or trailer.

1048. Parking of tractors, autos, cotton harvesters, their repair, lubrication and refueling shall be carried out at a distance of at least 50 meters from the raw cotton natural drying site.

1049. Raw cotton natural drying sites shall be located from residential buildings, public buildings, repair shops at a distance of at least 150 meters, and from high-voltage and low-voltage power lines at least 1.5 meters of the support height.

1050. Raw cotton natural drying sites shall be provided with measured amount of water for external firefighting, but not less than 50 cubic meters.

1051. Raw cotton natural drying sites shall be asphalted or tamped with clay cover at least 5 centimeters thick. It is not allowed to dry cotton on the roadway.

1052. Appliances preventing dust release from process equipment (sealing units, local suctions) shall be maintained in good condition.

1053. Settled cotton dust on equipment and building structures, as well as accumulated raw cotton is removed as needed, but at least once per shift.

1054. Devices that trap stones, metal and other foreign objects shall be kept in good condition.

1055. Units may be turned on after their emergency stop only after elimination of the faults.

1056. Cardan shafts and V-belt transmissions of belt conveyors are closed with serviceable casings, which prevent cotton from falling on rotating parts.

1057. Moving parts and shaft necks of cotton pickers shall be cleaned of cotton dust and fibers. The frequency of cleaning is established by an indication approved by the head of the agribusiness.

1058. Elevators shall be provided with stationary platforms with ladders. The site must be fenced with railings at least 0.9 meters high with solid sheathing at the bottom to a height of 0.1 meters.

1059. Failure of the automatic protection of the elevator drive in case of a belt break, as well as grazing of the working bodies against the wall of the elevator box, must not be admitted.

1060. The casing of the elevator must be equipped with easy-to-open hatches with reliable locks and elastic gaskets that ensure the tightness (sealing) of the lid around the entire perimeter.

1061. Conveyors shall be equipped with serviceable special devices for removing raw cotton from the bottom belt.

1062. Belt conveyors (loaders) transportation is carried out with the power off.

1063. Grounding of machines and devices included in the pneumatic transport system shall be kept in good condition. Mechanized shoveling of raw cotton through the fan is not allowed.

1064. The number of bales may not be exceeded in a group of more than two bales, with a platform size of 65x14 meters, four with a platform size of 25x14 meters for one bale, or six with a platform size of 25x11 meters for one bale. In this case, the height of the bale must be no more than 8 meters.

1065. It is not allowed to have fire breaks between bales in a group of less than 15 meters, and between groups of bales of less than 30 meters.

1066. Machines, mechanisms and road trains - cotton carriers, when sorting out bales, must stand only in 30 meter gaps.

1067. During the bale-stripper movement, running into the power cable must be avoided.

1068. Malfunctions that have arisen in machines and units can be eliminated only after they are turned off and removed from the bale at a distance of at least 5 meters.

1069. The ends of the milling pins must be spark-proof.

1070. To prevent the milling pins from touching metal (concrete) structures of a closed warehouse, limiters for lowering and raising the boom must be installed.

1071. During the drying unit operation, the following shall be provided:

1) serviceability of heat supply means (heat generators);

2) trouble-free operation of instrumentation and safety automation of heat-producing installations;

3) blocking the operation of the electric motor of the drum and auger, which ensures that the drum drive is turned off when the auger stops;

4) tightness of the door of the drying chamber and the feeder;

5) systematic cleaning of the drum section and the auger from raw cotton.

1072. Heat-producing installations used for drying raw cotton shall be installed in isolated premises of non-combustible structures.

1073. The drying unit operation must be constantly monitored. It is not allowed to exceed the temperature of raw cotton more than 70°C at the outlet. When yellowed raw cotton leaves the dryer drum, the supply of raw cotton and heat carrier shall be immediately stopped with the operation of the mechanisms stopped, and if the cotton coming from the dryer drum catches fire, the dryer shall be immediately stopped, the smoldering cotton is extinguished and removed.

Operation of the dryer is resumed only after a thorough inspection and elimination of the causes of overheating or burning of cotton.

1074. During raw cotton cleaners' movement, control is carried out over the state of the grate so that the gaps between the bars do not change and the grating surface is not clogged with impurities.

Cleaning of the grate and elimination of the clog in the thrust chamber of the fiber cleaners is carried out only with wooden objects (stick).

1075. Lint-cotton is stored only in bales. All broken bales are remade (into bales) at the end of each shift.

1076. When storing lint-cotton bales in stacks in open areas, a standard cotton stack is made no larger than: 22 meters long, 11 meters wide and 8 meters high.

With reduced stack sizes, gaps between adjacent stacks are not allowed less than half the totality of opposite sides of the stacks, but no less than twice the height of the highest stack.

1077. All the stored piles of lint-cotton in open areas must be covered with tarpaulin.

1078. Under a canopy, bales of lint-cotton are stacked leaving transverse aisles not less than 2 meters wide: with a floor area of 300 to 600 square meters - one aisle; with a floor area of 1200 square meters - three aisles; with a floor area of 1800 square meters - four aisles; over equal distances. At the height, the lint-cotton is laid so that the distance from the top to the roof lathing or the lower belt trusses is at least 1 meter.

1079. Lint-cotton bales in closed warehouses are placed on racks, leaving one longitudinal passage at least 2 meters wide and transverse passages of the same width opposite each door. A passage of at least 1 meter wide is left along the perimeter along the walls.

No partitions and desks inside the warehouse are allowed.

1080. Floors in closed warehouses and under a canopy, as well as foundations under stacks in open areas, must be made of non-combustible material.

1081. Cars and tractors may drive up to closed warehouses, sheds and piles of lint-cotton only on the side opposite to the exhaust pipe of the muffler, with the obligatory provision of exhaust pipes with spark arresters.

In all cases, access of cars, motor trucks, railcars, truck cranes and motorcycles is not allowed to canopies and piles of lint-cotton closer than 3 meters.

1082. At cotton mills and cotton points, storing over 2,400 tons of raw cotton, high-pressure fire-fighting water supply system shall be provided.

1083. At cotton mills and cotton points, storing over 2,400 tons of raw cotton, fire extinguishing may be carried out from reservoirs.

1084. Cotton ginning plants and cotton procurement facilities must have a telephone connection with the nearest city or district center that has a firefighting service.

Maintenance of stables and fodder storage premises

1085. Premises of stables must have two or more independent gates, in front of which it is prohibited to make thresholds, steps, gateways.

The gates and doors of the premises intended for taking the horses out must open only outwards. The gates are closed only with easy-to-open locks. In winter, all areas in front of the gates and doors of the stables must be systematically cleared of snow.

1086. In the stables, devices shall be provided enabling simultaneous release and removal of horses from the stalls in the event of a fire.

1087. The premises of the stables shall be provided with a sufficient number of reins, bridles, blankets and other devices necessary for taking out and tethering of the animals.

1088. The animals' feed preparation premises must be separated from other stable premises by structures (walls and floors) of non-combustible materials with a fire resistance of at least EI-45.

1089. In stables, electric wires must be laid openly, on insulators, cables, in steel pipes or cables. Only dust-proof and moisture-proof electric lamps are allowed.

Switchboards, switches, fuses are installed in entrance rooms or on the outer walls of the stables in cabinets made of non-combustible materials.

1090. A fodder room with a daily supply of fodder, as well as bedding storage room, is allowed at the stable.

The main stocks of fodder shall be stored in special warehouses.

1091. The forage room, as well as the bedding storage room, shall be separated from other rooms by fire partitions and ceilings and provided with an independent exit to the outside.

1092. For successful evacuation of horses from the stables, an animal evacuation plan in case of fire shall be made.

1093. When operating electrical networks in stables, it is not allowed:

1) to lay electric wiring over the animals' places;

2) stack hay, straw under electrical wiring;

3) lay electric wires and cables in transit through the stables;

4) use lamps whose power exceeds the maximum allowable for this type of lighting;

5) hang lamps directly on the wires.

1094. In stable premises the following is not allowed:

1) arranging workshops, warehouses, parking lots, and performing any work unrelated to the maintenance of animals;

2) entry of vehicles with internal combustion engines, whose exhaust pipes have no spark arresters;

3) installing springs and blocks on the gates for their automatic closing;

4) using kerosene lamps, candles and defective electric lamps to light the premises;

5) making temporary ovens;

6) storing hay, fodder, bedding in entrance rooms and aisles, in the attics of the stables;

7) smoking and using open fire.

9. Maintenance of transport facilities

Maintenance of road transport

Maintenance of garages and open parking lots

1095. In the case of transit laying of engineering communications (except for water supply and heat supply networks) through attached and built-in premises, the rolling stock shall be kept in blind building structures with EI-150 fire resistance range.

1096. Minor repairs and current maintenance of vehicles in the territory of open parking lots are carried out on hard-surfaced sites.

1097. At each site of minor repairs and routine maintenance of vehicles, a fire shield with a set of firefighting appliances shall be installed in accordance with Appendix 17 of the technical regulations General Fire Safety Requirements.

1098. It is not allowed to clutter up the premises of garages and open parking lots with objects and equipment that may impede their evacuation in case of fire or other emergencies.

1098-1. Garages, boxes and open parking lots (except for individual ones) shall be provided with vehicles placement layouts.

Footnote. The rules have been supplemented by paragraph 1098-1 in accordance with Resolution No. 921 of the Government of the Republic of Kazakhstan dated 13.12.2019 (shall be enforced ten calendar days after the date of its first official publication).

1099. Garages and open parking lots shall be kept clean. Spilled fuels and lubricants must be covered with sand and immediately removed.

1099-1. It is not allowed to park cars with engines running on compressed natural gas and liquefied petroleum gas in built-in premises intended for other purposes and attachments to them, as well as closed-type parking lots located below ground level.

Footnote. The rules have been supplemented by paragraph 1099-1 in accordance with Resolution No. 921 of the Government of the Republic of Kazakhstan dated 13.12.2019 (shall be enforced ten calendar days after the date of its first official publication).

1099-2. In parking lots (in closed-type car parks), arrangement and/or placement of premises for other functional purposes is allowed, provided that they are separated by solid fireproof partitions of type 1 (except for car washes, utility storerooms, storerooms for customers' luggage).

Storage of explosive substances and materials, flammable and combustible liquids, oils, cylinders with flammable gases, pressure cylinders in storage rooms and storage rooms for customers' luggage is not allowed.

Footnote. The rules have been supplemented by paragraph 1099-2 in accordance with Resolution No. 921 of the Government of the Republic of Kazakhstan dated 13.12.2019 (shall be enforced ten calendar days after the date of its first official publication).

1100. In the parking garages built into multi-apartment residential houses, public buildings, it is not allowed to store fuels and lubricants, with the exception of fuel in tanks installed on vehicles. In other garages, additional amount of fuels and lubricants, not exceeding for gasoline and diesel fuel - more than 20 kilograms, for oils - more than 5 kilograms, can be stored only in a metal tightly closed container.

1101. The use of garages and open parking lots for other purposes (storage of combustible materials, gas cylinders, arrangement of repair shops, painting booths, etc.) is not allowed.

1102. For car parking premises hot-water or air heating shall be provided, in combination with supply ventilation. It is allowed to use factory-made local heating devices with a smooth surface in the garage guarding rooms. At the same time, heating devices, the surface temperature of which exceeds 100°C, shall be protected by screens of non-combustible materials.

1103. In the premises, under sheds and on open parking spaces, the following is not allowed:

1) parking of vehicles in quantities exceeding the norm of the placement plan, reducing the distance between cars, buildings (structures);

2) obstruction of exit gates and driveway; performing blacksmithing, thermal, welding, painting and woodworking, as well as washing parts using flammable and combustible liquids ;

3) leaving vehicles with open fuel tank necks in the presence of leaks from fuel tanks, fuel lines and carburetors, as well as with faulty electrical equipment systems;

4) refueling vehicles with combustible substances, and also discharging them into the sewer or into the adjacent territory. Spent fuels and lubricants, filters, rags shall be collected in containers made of non-combustible materials, with closing lids;

5) recharging batteries directly on vehicles, as well as in the premises unsuitable for it;

6) heating engines with open fire (fires, torches, blowtorches), use of open fire sources for lighting;

7) placement in public parking lots of vehicles for carrying flammable and combustible liquids, as well as combustible gases;

8) storage of containers from flammable and combustible liquids;

9) painting vehicles, washing parts with flammable and combustible liquids;

10) engine heating, repair work using open flames, as well as the use of open fire sources for lighting during repair work.

1104. When operating vehicles running on gaseous fuel:

1) it is not allowed to park vehicles with a technically faulty (leaky) gas supply system in a closed area;

2) when vehicles are put on overnight or long-term parking, the exhaust valves must be closed, all the gas in the main gas pipe must be spent, after which the ignition is turned off, the main valve is closed and the "mass" on the accumulator is turned off;

3) movement in a closed room of the vehicle "under its own steam" only on liquid fuel (gasoline, diesel fuel) is not allowed;

4) it is not allowed to bleed liquefied petroleum gas (hereinafter - LPG) in the premises intended for keeping vehicles in;

5) the premises must be thoroughly ventilated after the vehicles leave them;

6) in winter, when vehicles are parked outdoors and at low temperatures, heating of the engine and elimination of ice blockages in gas communications are carried out using hot water, steam or hot air;

7) systems related to pressure control, gas usage, engine heating, switching to different types of fuel and gas supply to the carburetor-mixer shall be kept in good condition. Safety valves on LPG cylinders, as well as solenoid valves that block the fuel supply can be operated only in good condition. Examination of cylinders is carried out at least once every 2 years;

8) it is not allowed to use and store LPG in closed parking garages and other heated premises where the air temperature exceeds 25 °C;

9) the engine is started only on one type of fuel - on gas or gasoline.

1105. Premises for parking and open parking lots (except for individual ones) must avail of towing cables and rods- 1 cable (rod) per 10 vehicles.

1106. In garages for individual use, in addition to the above requirements, it is not allowed to store furniture, household items made of combustible materials, as well as fuel supply of more than 20 liters and oil more than 5 liters.

1107. It is not allowed to repair cars with tanks filled with fuel (and gas cars with cylinders filled with gas) and sumps filled with oil. Upon completion of work, the room and inspection pits shall be cleared of oiled wiping rags and various liquids.

Maintenance of accumulator stations

1108. In the process of charging accumulators:

1) reliability of the connection of wires to the battery terminals is checked to avoid their sparking;

2) plugs in battery banks are kept open;

3) the charging current is turned on and the charged batteries are stored only with the flow exhaust ventilation running;

4) the conductors are disconnected from individual batteries only when the charging current is turned off;

5) damaged conductors are immediately replaced with new ones.

1109. Soldering work or work using a blowtorch in the charging rooms of battery stations shall be carried out no earlier than 2 hours after the termination of battery charging, provided that the room is thoroughly ventilated. During soldering or working with a blowtorch, the room shall be continuously ventilated. The place of soldering must be separated from the technological equipment of the room with fire-resistant shields.

1110. At the accumulator stations the following shall not be not allowed:

1) smoking, making fire, using electric heaters;

2) storage of acids, alkalis or electrolyte in an amount exceeding one-shift needs;

3) leaving special clothing and foreign objects at the workplace.

Washing and painting works procedure

1111. Washing and painting workshops, sections and departments must be accommodated in specially equipped one-story buildings not lower than II degree of fire resistance, along outer walls with window openings and separated from adjacent production premises by fire-proof walls. Access to adjacent rooms from the washing and painting workshops is through pressurized lobbies with guaranteed air pressure.

1112. It is allowed to place painting shops in the upper floors of buildings in separate isolated premises located near the outer walls, separated from adjacent rooms by fire-proof walls and having separate exits to stairwells.

1113. Placing washing and painting shops in basements, basement and ground floors of multi-storey buildings is not allowed.

1114. Paint preparation departments must be accommodated indoors at an outer wall with window openings, with an independent evacuation exit and must be isolated from adjacent rooms by non-combustible walls.

1115. The floors of washing and painting workshops, as well as paint preparation departments, must be non-flammable, electrically conductive, resistant to solvents, excluding sparking.

1116. The inner surfaces of the walls of washing and painting shops must be lined with at least 2 meters high non-combustible material, enabling easy clearing of contaminants.

1117. The premises of washing and painting shops, varnish-paint labs and paint preparation departments shall be equipped with independent mechanical supply and exhaust ventilation and local exhaust ventilation from painting booths, dipping baths, dousing installations, manual painting posts, drying chambers, washing and surfaces degreasing areas. To prevent formation of explosive concentrations in these rooms, automatic gas analyzers are installed.

1118. The surfaces of heating devices in washing and painting shops and paint preparation departments shall be smooth and not heated above 95 °C, ribbed radiators may not be used.

1119. It is allowed to use electrical equipment and lamps of washing and painting shops, paint and varnish laboratories and paint preparation departments only if they are explosion-proof in accordance with the Electrical Installation Rules.

Electric starting devices, push-button electromagnetic starters are installed outside the washing and painting rooms.

1120. In the washing and painting workshops, fireproof sewage shall be provided, with traps or sediment tanks with hydraulic gates that are systematically cleaned of paint waste.

1121. Mobile technological equipment of washing, painting shops and paint preparation departments (ladders, step ladders, boards, carts) must be equipped with protective devices preventing sparking on impact and at friction.

1122. The premises of washing and painting workshops, paint preparation departments and paint and varnish laboratories must be constantly kept clean and tidy. Premises, equipment and workplaces shall be cleaned by a wet method at least 1 time per shift.

Spilled paints and varnishes and solvents shall be immediately removed with sawdust, washed with water.

Washing of floors, impregnation of walls and equipment is carried out with fireproof technical washing liquids. The use of flammable organic solvents for these purposes is not allowed. Wiping rags after use are cleaned in special metal lockable boxes and at the end of each shift they are taken out of the room to the designated place.

Empty containers from paints and varnishes are taken out of the workshop as soon as they are emptied and are stored with tightly closed lids at specially designated areas.

1123. To remove static electricity charges during washing and painting, all technological equipment, paint sprayers, pipes (flexible hoses) for solvents and paints, as well as individual components, parts and products being painted or washed, shall be reliably grounded.

The grounding electrode resistance must not be more than 10 ohms.

1124. Antistatic additives must be put into organic flammable solvents used for washing and degreasing individual components, parts or products. Washing and degreasing is done only with cotton napkins wound on a metal mesh connected by a wire to a grounding loop.

1125. To prevent formation and remove static electricity charges on people:

1) workers and employees are not allowed to wear clothes made of synthetic materials and silk, as well as rings and bracelets;

2) grounded surface zones must be provided on the platforms and working platforms of the workshop;

3) door handles, handrails of stairs, instrument handles are grounded;

4) employees are provided with conductive footwear and antistatic bracelets;

5) employees are obligated to periodically (as often as possible) remove static electricity from themselves by touching grounded metal objects or equipment with their bare hands, but not near flammable organic solvents or paints.

Maintenance of metro system

1126. At each station, the following shall be developed: an operational fire extinguishing plan, requirements of fire safety measures, a passenger evacuation plan, the subway workers' actions during the operation of tunnel ventilation shafts in the event of smoke or fire. These documents are stored in the station duty officer's office. The second copy of the fire extinguishing operational plan is kept at the cash desk at the senior cashier's and is issued at the first request of the head of the fire extinguishing team.

1127. The junctions of operating tunnels and stations to facilities under construction and reconstruction shall be fenced off with non-combustible smoke-tight partitions before the start of the work. When organizing work at the junction with the existing metro lines, a telephone connection is established with the staff on duty.

1128. Only non-combustible materials shall be used for cladding walls, ceilings of evacuation routes (corridors, stairwells, vestibules, halls), and also for advertising in the decoration of underground premises and vestibules of the stations.

1129. It is allowed to use wardrobes installed in the underground space of metros only from non-combustible materials.

1130. In the underground structures of the station, it is allowed to store no more than two gas cylinders with a capacity of no more than 5 liters each in a specially designated place.

1131. Hot works in the metro underground structures shall be carried out only at nighttime after removal of voltage from the electrical power network, with the exception of emergency work performed on the order of the heads of services.

1132. Gas welding and electric welding works in existing tunnels is allowed only from special units installed on mobile vehicles.

1133. Fuels and lubricants are delivered into the tunnels on a motor rail transport equipped for this purpose in special dispensing tanks at night (in the absence of passengers in the subway).

1134. Vehicles adapted for transporting fuel and lubricants in tunnels shall be equipped with primary fire extinguishing appliances.

1135. To check the fire regime in the premises of stations and cable vaults, on the emergency board in the cabins of those on duty at the stations, keys must be kept marked in accordance with the numbering of the premises. Inspection of these premises is carried out in the presence of the station duty officer or service representative.

1136. Staying of more than 30 people in the technical premises' classrooms in the underground space for briefings with metro employees, is not allowed.

1137. When carrying out repair work in the underground space of subways, metal scaffolding shall be used.

1138. In operating tunnels the following is forbidden:

1) works with gas generators;

2) impregnating rails, linings, wedges with creosote, and also heating up bitumen.

1139. Storage of spare parts and materials is not allowed in the premises of machine rooms, escalators and dismantling chambers.

1140. Painting of cable lines in tunnels is carried out only at night with the permission of the head of the station.

1141. The electric train cars must be supplied with a serviceable communication device " passenger-driver" and primary fire extinguishing appliances.

1142. Electric ovens installed in driver's cabs must be securely fixed and provided with independent protection. It is not allowed to place various combustible materials on and near ovens.

1143. Trade kiosks shall be installed only in ground vestibules of the stations. Kiosks must be made of non-combustible materials. Trading kiosks are placed in such a way that they do not interfere with the passengers' movement.

1144. Oil electric radiators or heating electric panels are used for heating kiosks.

1145. Kiosks shall be equipped with primary fire extinguishing appliances and automatic fire alarm with a signal transmitted to the room with round-the-clock stay of duty personnel.

1146. The following is forbidden:

1) trade and use of flammable and combustible liquids, combustible gases, articles in aerosol packaging, pyrotechnic products and other flammable materials;

2) storage of wares, packaging material, trade inventory in the stations' premises.

Maintenance of railway transport

1147. Racks in luggage storage rooms and baggage compartments shall be made only of non-combustible materials. Decks are not allowed.

1148. In locomotive depots and stock bases of locomotives (steam engines) it is forbidden to:

1) put steam locomotives with operating fireboxes in the depot, and also heat them in stalls outside the exhaust hoods;

2) clean fireboxes and ash pans in depot stalls and undesignated places;

3) install rolling stock with flammable and combustible liquids, hazardous and other combustible goods at a distance of less than 50 meters from the designated place for cleaning the steam engine furnace;

4) put tanks with flammable and combustible liquids into the depot stalls, as well as empty tanks from the indicated liquids without their preliminary steaming;

5) drain fuel and oils of boxes (stalls) into buckets, dripping-pans and auxiliary containers ;

6) refuel diesel locomotives with fuel and lubricants in places not specified by the technological process;

7) leave fuel tanks' necks open.

1149. Slag ditches shall be made at a distance of at least 50 meters from warehouses storing combustible materials, as well as buildings of IV, IVa and V fire resistance degrees. Slag and ash in the places of cleaning furnaces are doused with water and regularly removed.

1150. Locomotive (steam locomotive) reserve bases shall be positioned far from the main tracks and must be provided with reliable fencing and outdoor lighting.

1151. The sites allocated for washing and steaming stations (points) shall be equipped in accordance with the requirements of the standard technological process of the stations and shall be located from the railway tracks, the nearest station and traction tracks at a distance of at least 30 meters, and from neighboring railway buildings and structures - at least 50 meters.

The sections of the territory where the tanks are processed shall be provided with a hard surface, blocking penetration of oil products into the soil.

1152. Tanks shall be supplied to their processing places only by diesel locomotives (motor locomotives) equipped with spark arresters. When supplying tanks, a protection must be installed of at least two four-axle wagons. Diesel locomotives may not approach cleaning sites closer than 20 meters, which should be indicated by a signal prohibiting further movement.

1153. Drain devices, covers of caps and loading hatches of tanks supplied for processing to washing and steaming stations (points) must be closed. Treated tanks must be equipped with serviceable shut-off valves.

1154. The ways on which the valves of the drain devices of tanks are fuelled must be equipped with chutes or other devices for trapping oil products residues.

Hatches and pits on settling tanks and pipelines must be constantly closed with lids.

Only rechargeable torches and spark-proof tools are used to fuel valves.

1155. Railway tracks, overpasses, pipelines, containers, tanks with flammable gases, flammable and combustible liquids under discharge and filling shall be provided with reliable grounding to remove static electricity.

1156. On metal portable and mobile ladders copper hooks and rubber pads must be made under the joints.

1157. Lighting inside boilers and tanks is allowed only with rechargeable lanterns. The lantern should be turned on and off outside the tanks.

1158. Overpasses and platforms shall be cleaned of oil product residues and washed with hot water at least 1 time per shift.

1159. On the territory of washing and steaming stations (points) the following is not allowed:

1) the use of non-explosion-proof lights, lamps and fixtures;

2) the use of tools made of ferrous metal or other materials that generate sparks on impact;

3) laying overhead electrical wiring over railway tracks, buildings and structures;

4) wearing shoes lined with steel plates or nails when working inside the tank boiler;

5) draining the remains of flammable and combustible liquids, together with water and condensate, into the general sewer network, open ditches, collecting gutters, under sloping;

6) the use of portable steel ladders for lowering people into the tank, as well as wooden ladders upholstered in steel;

7) leaving cleaning materials inside and on the outer side of the inspected tanks;

8) entry of locomotives into the cleaning depot and under overpasses.

1160. Railroad right-of-ways shall be kept cleared of deadwood, logging and bushes residues, old rails and other combustible debris. These materials must be promptly removed from the way.

1161. Flammable and combustible liquids spilled on the tracks must be covered with sand , earth and removed beyond the track.

1162. During temporary storage at hauls, stations and link-assembly bases, the sleepers and beams must be piled in stacks.

The site for stacks and the territory at a distance of at least 3 meters must be cleared of dry grass and other combustible material, dug over or plowed up.

1163. Stacks of sleepers and beams must be laid parallel to the track at the distance of at least 30 meters from buildings and structures, 10 meters - from the tracks of organized train traffic, 6 meters - from other tracks and at least one and a half height of the support from the axis of power transmission and communication lines. Gaps between stacks of sleepers must be less than 1 meter, and between each pair of stacks at least 20 meters.

1164. Storage of hay, straw and firewood at a distance of less than 50 meters from bridges , track structures and organized train traffic routes, as well as under the wires of power transmission and communication lines is not allowed.

1165. In the right of way area, making fires and burning brushwood, logging materials, as well as leaving dead trees and shrubs is not allowed.

1166. In forest areas, bridges must be bordered by a mineralized strip at least 4 meters wide along the outer perimeter of the right of way.

1167. Land plots under bridges within a radius of 50 meters shall be cleared of dry grass, shrubs, deadwood, combustible debris.

1168. Wooden overpasses located above the railway tracks must be plated from below with roofing steel to a width of at least 4 meters with edges lowered on both sides by 0.3 meters.

1169. When rivers freeze, all wooden and metal bridges with wooden flooring must have non-freezing ice-holes and driveways to them for firefighting purposes. The location of the hole must be indicated by a sign.

1170. On all bridges and overpasses the following is not allowed:

1) making under them or near them warehouses of materials, parking places for vessels, rafts, barges and boats;

2) refueling of kerosene lanterns and tanks of gasoline-powered units;

3) keeping span structures and other structures uncleared of oil products;

4) burning dry grass under bridges, as well as burning bushes and other combustible material.

1171. Railway tracks for parking cars of track machine stations shall be equipped with turnout switches to ensure withdrawal and spacing of rolling stock in case of fire.

1172. Cars that house production workshops, schools, children's institutions shall be placed in separate groups with fire breaks from residential buildings of at least 10 meters.

1173. In the absence of artificial and natural water supply sources at the locations of track machine stations, a water supply shall be created for fire extinguishing needs in railway tanks or other containers - 50 cubic meters for each group (15-20) of cars.

1174. Each mobile formation shall be provided with telephone connection with the nearest railway station to call the fire service. A fire warning signal is installed at the parking points of cars of track machine stations.

Transporting explosive and flammable substances and materials

1175. When transporting hazardous cargo, only strong, serviceable containers and packaging shall be used, which fully prevent leakage and spillage of the cargo, ensuring safety of the cargo and the safety of transportation. In this case, containers and packaging made of materials that are inert with respect to the contents must be used.

1176. Tank trucks transporting flammable gases, flammable and combustible liquids shall be equipped with reliable grounding, fire extinguishers in accordance with the Technical Regulations General Fire Safety Requirements, fire blanket, a container with sand weighing at least 25 kg, and marked in accordance with the cargo danger degree, and exhaust pipes must have serviceable spark arresters.

1177. Explosive and fire hazardous cargos that emit flammable, poisonous, caustic, corrosive vapors or gases, become explosive when dried, can dangerously interact with air and moisture, and also goods with oxidizing properties shall be packed hermetically.

1178. Dangerous goods in glass containers shall be packed in strong boxes or crates (wooden, plastic, metal) with free space filled with appropriate non-combustible cushioning and absorbent materials.

The use of boxes, the height of the walls and crates of which is 0.05 meters lower than the sealed bottles and cans, is not allowed. When transported in small shipments, dangerous goods in glass containers must be packed in tight wooden boxes with lids.

1179. Dangerous goods in metal or plastic jars, cans and canisters must be additionally packed in wooden boxes or crates.

1180. It is not allowed to load into one wagon or container dangerous goods of different groups, as well as some dangerous goods of the same group, not allowed for joint transportation.

1181. When loading containers with acids into wagons, they are placed in the opposite direction from containers with flammable and combustible liquids. All containers in the car are tightly installed one to the other and firmly fixed.

1182. Cylinders with poisonous gases (subclass 2.2) and flammable (combustible) poisonous gases (subclass 2.4), as well as empty cylinders from these gases, are transported only by carload consignments or in containers in accordance with fire safety requirements for the joint storage of substances and materials .

1183. Cylinders with combustible and poisonous gases are loaded in a horizontal position with protective caps in one direction.

In a vertical position, gas cylinders are loaded only if there are protective rings on all cylinders and under the condition of tight loading, which excludes the possibility of cylinders moving or falling. Doorways must be fenced with at least 40 millimeters thick boards to exclude the cargo heaping on the door.

As an exception, it is allowed to load cylinders without protective rings during transportation. In this case, boards insertions with cutouts for cylinder nests are installed between each row of cylinders.

It is not allowed to use hay, straw and other flammable materials as insertions between cylinders (vessels).

Flammable and combustible liquids are transported in standard pressurized and sealed barrels.

Carriages transporting isopropyl nitrate and samin, both loaded and empty, shall be escorted by a team of specialists from the consignor (consignee).

1184. Flammable and combustible liquids and combustible gases shall be supplied to workplaces by a centralized transportation method.

Open containers may not be used for supplying flammable and combustible liquids to workplaces.

1185. When laying pipelines of combustible gases, of flammable and combustible liquids in buildings and structures:

1) openings (gaps, crackages) in the pipelines penetration points through engineering structures shall be hermetically sealed with non-combustible materials across the whole width of the building structure;

2) serviceable gas-tight bulkheads (diaphragms) made of non-combustible materials must be used at the junction of channels and trenches (open and closed) from one premise to another.

1186. Sealless pumps and pumps with mechanical seals are used for pumping combustible gases and flammable liquids.

On pipelines operating with an incomplete cross section, hydraulic gates are installed.

1187. Glass containers with flammable and combustible liquids with a capacity of 10 liters or more must be put in wicker baskets or wooden crates, and glass containers with a

capacity of up to 10 liters are put in thick wooden boxes with cushioning materials that mitigate shocks and absorb liquid leaking if containers break.

1188. Conveyors, bucket elevators, gravity and pneumatic pipes can be in operation only with serviceable and tightly covered dust emission places. They are equipped with ventilation that ensures constant and efficient dust extraction from under the covers.

1189. During the operation of pneumatic transport and gravity devices (during the movement of the product in pipelines), accumulation of dust in pipelines shall be prevented. Cleaning of pipelines is carried out according to the schedule approved by the head of the facility.

1190. The launch of conveyors and pneumatic conveying devices is carried out only after their thorough check at free run, check of the absence of foreign objects in them, presence of lubrication in the bearings, and also serviceability of all protection devices.

1191. Automatic blocking of electric motors of technological equipment with electric motors of blowers, from which the product enters the corresponding pneumatic transport network, shall be kept in good condition and checked at each launch of the equipment.

1192. To avoid blockages and overpressure of equipment by transported bulk (powder-like) products, automatic blocking shall be provided for emergency stop of conveyors .

1193. Operation of defective screw conveyors and bucket elevators (no gap between the screw and the wall of the chute, friction of the belts and the buckets touching the walls of the chute) is not allowed.

1194. Conveyor rollers and tension drums must rotate freely. Slipping of the belt must be prevented, as well as lubricating of the drive drums with bitumen, rosin and other combustible materials.

1195. To stop operation of the process equipment of the workshop and turn off the aspiration and ventilation systems in case of fire in elevators, gravity and pneumatic pipes and other conveyors, special buttons must be installed on each floor near the staircase.

1196. It is not allowed to operate aspiration lines and lines for transporting crushed materials with disconnected or faulty automatic fire arresters.

1197. Openings in fire barriers, for the passage of conveyors, are protected by fire-blocking devices (doors, gates, water curtains, overflow devices).

1198. When transporting explosive and flammable substances, safety signs must be put on the vehicle, and also on each package containing these substances.

1199. Transportation of large batches of explosive and flammable substances through the territory of a settlement by motor transport is carried out in accordance with safety requirements and only at night.

1200. When transporting explosive and flammable substances, it is forbidden to:

1) transport tanks with flammable liquids and combustible gases through the populated area in daytime;

2) allow shocks, sudden braking;

3) transport cylinders with combustible gases without safety boots;

4) leave the vehicle unattended.

1201. Sites for loading and unloading explosive and flammable substances and materials shall be equipped with:

1) special devices that provide fire-safe working conditions (racks, shields, ladders, stretchers). At the same time, trolleys or special stretchers with nests should be provided for glass containers. It is allowed to carry glass containers in strong baskets with handles that allow two workers to move them;

2) means of fire extinguishing and liquidation of emergencies;

3) serviceable stationary or temporary lighting corresponding to the zone class in accordance with the Electrical Installation Rules.

1202. On loading and unloading operations sites with explosive and fire hazardous cargoes, the use of open fire is not allowed.

1203. Used loading and unloading mechanisms shall be kept in good condition.

1204. Drivers and machine operators waiting for loading or unloading, and also during loading and unloading, are not allowed to leave vehicles unattended.

1205. Vehicles (wagons, truck bodies, trailers, containers) supplied for loading of explosive and fire hazardous substances and materials shall be kept in good condition and cleared of foreign objects.

1206. Should damage to containers (packaging) or spilled substances be detected, the damaged containers (packaging) shall be removed immediately, the floor shall be cleaned and the spilled explosive and flammable substances shall be removed.

1207. When handling explosive and fire-hazardous goods, employees must observe the marking and warning notices on packages.

1208. Handling explosive and flammable substances and materials shall be prohibited when vehicle engines are running or when it is raining if the substances and materials are prone to self-ignition upon contact with water.

1209. Explosive and fire-hazardous goods in wagons, containers and vehicle bodies shall be securely fastened to prevent their movement while in motion.

1210. When handling operations involving the filling and draining of flammable and combustible liquids:

1) hatches and covers shall be opened smoothly, without jerks or bumps, using intrinsically safe tools. Loading and unloading of containers laden with flammable and combustible liquids shall be prohibited;

2) fittings, hoses, plug connections and static electricity protection shall be maintained in good technical condition.

1211. Prior to filling reservoirs, tanks, containers with liquid, the measuring device must be inspected to ensure that it is in good working order.

1212. Reservoir level measurement and sampling shall be generally performed during daylight hours. Those working at night, shall only use rechargeable explosion-proof torches.

Level measurement and manual sampling during thunderstorms and while the product is being pumped or pumped out shall be prohibited.

Intrinsically safe samplers and earthing shall be used.

1213. Flammable and combustible liquids shall be filled and emptied using pipes and hoses with flammable and combustible liquids in good working order and only after checking that the relevant valves are correctly opened and closed and that the hoses and pipelines are tightly connected. Shut-off valves shall be fully opened.

1214. Product supply to reservoirs shall be prohibited as a "falling jet". The speed of reservoir filling (emptying) shall not exceed the total capacity of the breather valves and safety valves (or ventilation spigots) installed on the reservoir.

1215. When the unloading of explosive or fire-hazardous goods has been completed, the wagon, container or vehicle body shall be inspected and the remains of substances and debris shall be carefully collected and removed.

1216. The provisions of this paragraph shall apply to the operation and maintenance of special rail tank wagons designed for the carriage of the following liquefied petroleum gases and their mixtures: propane, n-butane, isobutane, propane-butane, propylene, isopentane, n-pentane, butadiene, isoprene, n-butylene, propane-butylene, alpha-butylene, beta-butylene, butylene divinyl fraction, isobutylene, isobutane-isobutylene, piperilene, butane isobutene fraction, waste butane-isobutylene fraction, pentane-isopentane, pentane-hexane, isoamylene, reflux, unstable gasoline, butane-butylene fraction, propane-propylene fraction, light hydrocarbon broad fraction and other similar products permitted for carriage in the prescribed manner.

1217. If there is a fire hazard associated with a liquefied petroleum gas tanker at a station, steps shall be undertaken to disconnect the tanker from the train and remove it to a safe place.

1218. The tank boiler, its components as well as its internal inspection shall only be repaired after the boiler volume has been degassed and a permit has been issued by the works supervisor.

1219. The following shall not be permitted during repair work:

1) repair of boilers in laden condition as well as in empty condition before its volume is degassed;

2) strike the boiler;

3) the use of sparking tools with an open flame (torch, brazier, paraffin lantern) in the vicinity of the tank;

4) perform welding and hot work under the tank.

When it is required to carry out trolley repair work using fire, welding and impact, the trolleys shall be rolled out from under the tank and away from it to a distance of at least 100 metres.

1220. When working inside the tank boiler (internal inspection, repairs, cleaning), light fittings shall be used with voltages not exceeding 12 volts and in a functioning explosion-proof version. Lights shall be switched on and off outside the tank boiler.

1221. The air inside the boiler shall be analysed to ensure that there are no dangerous concentrations of hydrocarbons and that the oxygen content is not exceeded prior to work being carried out inside the boiler.

The oxygen content shall be between 19-20% (volume). The concentration of flammable substances in the boiler volume shall not exceed 20 % of the value of the lower flame spread concentration limit of liquefied petroleum gases.

1222. When not in use, the tank valves shall be closed and plugged. Where necessary, the gland packing of filled tank valves shall be replaced when the valve is fully closed and the plugs are removed.

1223. If a fire hazard or fire occurs in a rolling stock with liquefied petroleum gas tank wagons, at railway stations, crossings, unloading racks, tracks of industrial enterprises, when shunting operations are carried out, managers, dispatchers, drivers and other railway transport workers shall act as per the plan of localisation and elimination of fire hazards.

The plans must be reviewed at least once every 5 years. If changes in technology, equipment design, metrological support, changes in transport organisation, data on fire hazards and fires during transport occur, the plans shall be updated within 15 days. Amendments and corrections to the plans shall be approved and co-ordinated in the same manner as the plans themselves.

1224. The plan shall include the following main provisions:

1) the procedure for notifying the central fire brigade of a local fire brigade, a local police station and a railway station dispatcher of a fire;

2) the procedure for summoning fire-fighting and recovery trains to the scene of a fire or a fire;

3) the procedures for determining control areas and assigning duties to station personnel to disperse and remove wagons and trains from the danger zone, and to contain a fire situation or a fire in its initial stages;

4) a detailed diagram (plan) of the site (railway section) showing all relevant data;

5) the procedure for interaction between railway workers and fire brigades.

1225. The list of priority works to be carried out by station employees as stipulated in the plan of localisation and elimination of fire hazards and fires:

1) within 15 minutes of detecting the fire, dispersing wagons and trains to a safe distance from the source of the fire (burning wagon, liquefied petroleum gas spill and combustion of liquefied petroleum gases);

2) release of at least 3 adjacent tracks on both sides of the fire area and withdrawal of rolling stock from the danger zone. If the rolling stock is protected on adjacent tracks, it shall be permitted to remove the burning stock;

3) de-energising and grounding the overhead line in the areas where the fire brigades are working;

4) clearance of a safe area from the fire source downwind of the first and second track, but no further than the fourth to fifth track, to accommodate incoming fire and rescue trains;

2) evacuation of rolling stock, primarily with people and dangerous goods, towards the exhaust tracks, due to the possible direction of the fire, which poses a direct threat to the station's main park, station buildings, structures, constructions and objects surrounding the station;

3) deployment and hose routing by incoming fire-fighting units;

4) cooling the walls of the burning tank and the tanks located next to it, and, if necessary, extinguishing the fire by the branch fire-fighting service, volunteer fire-fighting units and station employees using primary fire-fighting equipment and available fire-fighting equipment, running a hose line from the nearest water sources. These operations shall be performed provided that the personal safety of the people undertaking the operations is ensured;

5) ensuring that the water supply network is pressurised to a standard pressure level and, if necessary, reducing the water consumption for domestic purposes;

6) securing a meeting of fire-fighting units and informing the arriving chief of the nature of the fire situation or fire. If the fire cannot be contained within 15 minutes of the start of the fire, only fire brigades may be present in the fire area (within 100 metres of the tank).

1226. The head of the railway (head of the railway, division, station or their deputies) or the head of the recovery train shall be in charge of localising and eliminating the fire situation or fire prior to the arrival of fire-fighting units.

Upon arrival of fire-fighting units, fire-fighting management shall be entrusted to the chief operating officer in charge of extinguishing the fire; station employees' actions to evacuate and disperse the rolling stock shall be performed as directed by the chief of operations and as agreed upon with the fire-fighting manager.

1227. When liquefied petroleum gas leaks, any process operations for the discharge or filling of liquefied petroleum gas as well as train movements and shunting operations not related to the containment and elimination of the fire hazard situation shall be terminated. Any potential source of inflammation (fire, sparks) shall be removed. Flammable substances shall be eliminated from the liquefied hydrocarbon gas spill area. State fire-fighting, fire-fighting and gas rescue service units of the area shall be summoned to the place of accident, local executive authorities shall be notified of the danger.

If expert personnel are available, the leak shall be eliminated if it is not dangerous, or the contents of the tank shall be transferred to an operable tank (vessel), taking all precautions and subject to the presence of fire-fighting units at the site of the emergency work. A tank wagon carrying liquefied petroleum gas shall be diverted to a safe area.

If the gas leaks heavily, the gas shall be completely discharged from the tank and the formation of possible gassing zones within a radius of 200 metres shall be continuously monitored until the gas has completely dissipated.

Measures shall be taken to prevent liquefied petroleum gases from entering tunnels, basements, sewers.

1228. When liquefied petroleum gas leaks catch fire in the absence of fire-fighting units on the scene, measures shall be undertaken to isolate the fire and create conditions for the safe burning out of the product leaking from the damaged tank or the communications of the trestle.

1229. In specific situations, the localisation and fire-fighting supervisor shall order the ignition of leaking liquefied petroleum gases, if this does not endanger the safety of people or result in the destruction of other facilities and the spontaneous development of the fire. Gas shall be ignited from a remote location using a flare gun, firecrackers.

Liquefied petroleum gas leaks shall be extinguished once the required and estimated number of fire-fighting units have arrived at the scene.

10. Maintenance procedure of storage facilities

General provisions

1230. The storage of substances and materials in warehouses (rooms) shall have regard to their fire-hazardous physical and chemical properties (ability to oxidise, self-heat and ignite on contact with moisture, contact with air), signs of compatibility and homogeneity of extinguishing substances as per the provisions for the joint storage of substances and materials.

No other materials or goods, irrespective of the homogeneity of the extinguishing agents used, may be stored together in the same compartment with the rubber or tyre material.

1231. Cylinders with flammable gases, containers (bottles, large bottles, other containers) with flammable and combustible liquids and aerosol packages shall be protected from sunlight and other thermal effects.

1232. Aerosol packages in multi-storey warehouses shall be stored in fire-proof compartments on the top floor only, if the number of packages in the compartment does not exceed 150,000.

A maximum of 15, 000 packages (boxes) may be stored in an insulated storage compartment, for a total capacity of up to 900,000 packages. The warehouses shall be housed in buildings without roofs, with easily thinnable roofs.

A maximum of 5,000 aerosol packages shall be stored in general stores.

1233. Aerosol packages shall only be stored in non-combustible containers in open areas or under sheds.

1234. Materials shall be stacked in the storage area in a rackless storage system. Free aisles of at least 1 metre width shall be left in front of the storage area door openings.

At least 0.8 metre wide longitudinal aisles shall be provided every 6 metres in the storage area.

1235. Woodwork inside storage areas shall be treated with a fire retardant,

1236. No warehouses may be located in areas through which electricity, gas or other utility lines are in transit.

1237. A distance from lighting fixtures to stored goods must be at least 0.5 metres and 0.2 metres to the surface of combustible building structures.

1238. No accommodation units, meals rooms or other auxiliary services shall be allowed in the premises intended for the storage of inventory.

1239. Glazed partitions for enclosing the workplaces of shop assistants, experts, storekeepers in storage areas must not obstruct the evacuation of people or goods in the case of fire.

1240. No parking or repair of loading/unloading equipment or vehicles, in storage areas or on loading bays shall be permitted.

Loads and materials unloaded onto the ramp (platform) shall be removed by the end of the working day.

1241. Any activities related to opening containers, checking serviceability and minor repairs, filling products, preparing working mixtures of flammable liquids (nitro paints, varnishes) in warehouse buildings shall be performed in rooms isolated from storage areas.

1242. Trucks, motor trucks, lift trucks and taps, as well as other types of lifting equipment shall be allowed to approach skips, stacks and sheds where coarse fodder, fibrous materials are stored, within a distance of less than 3 metres, provided they have functioning spark arresters.

1243. The electrical equipment in the storage area shall be switched off at the end of the working day. Apparatus for disconnecting the power supply to the storage area shall be placed outside the storage area, on a wall made of non-combustible material or on a freestanding support, enclosed in a cabinet or recess with a fixture for sealing and locked.

1244. Emergency lighting in storage areas, as well as the operation of gas cookers, electric heaters and the installation of plug sockets shall be prohibited.

1245. For outdoor storage of materials, the area of one section (stack) shall not exceed 300 square metres and the fire breaks between stacks shall not be less than 6 metres.

1246. No personnel or other persons shall be accommodated in the buildings on the bases and warehouses.

1247. No locomotive entry into storage areas of categories A, B and B1-B4 shall be permitted.

1248. No flammable or combustible liquids may be stored in the workshop storerooms in quantities exceeding the enterprise's standard.

1249. No combustible materials or non-combustible materials in inflammable containers may be stored in basement and basement areas that do not have windows with

smoke-extraction holes, or when common stairwells of buildings communicate with these floors.

Maintenance of storage facilities for flammable and combustible liquids

Maintenance procedures for reservoir tank storages

1250. The volume of the reservoir tank bunding shall be equal to the volume of the largest tank in the bund and shall be kept in good working order at all times. Areas inside the bund shall be levelled and covered with sand. Access through bunds for mechanised fire-fighting equipment shall be approved by the enterprise's management. The integrity and height of the bunds and driveways along the reservoir tank storage boundaries must not be compromised.

1251. No electrical equipment or wiring may be installed inside the tank bund or directly into the tank except for the control and automation lines for filling and level measurement.

The use of such electrical equipment and wiring shall be permitted only in explosion-protected versions as specified in the Electrical Installations Rules.

1252. The piping in the reservoir tank storage shall be designed to allow for the transfer of oil from one tank to another during an emergency with a reservoir.

1253. During the winter season, snow shall be removed from the reservoir tank storage roofs in a timely manner and snow shall be cleared from the paths and fire passages in the tank reservoir storage.

1254. Where a reservoir tank storage is filled with oil or petroleum product which is to be heated or stored for a prolonged period in summer, the liquid level (to avoid overfilling the tank) shall be adjusted to the expansion of the liquid when heated. The maximum level of cold petroleum product must not exceed 95% of the tank height and liquefied gases must not exceed 83%.

1255. Oil spilled on the tank roof must be removed immediately after leveling or sampling and the tank roof must be wiped dry. Wiping materials and items shall not be left on the roof.

1256. Gas analysers with light and sound alarms shall be installed for continuous monitoring of hydrocarbon concentrations in explosive and fire hazardous areas.

Footnote. Paragraph 1256 as reworded by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall be enacted ten calendar days after the date of its first official publication).

1257. Each reservoir shall be systematically (as per schedule) cleaned of accumulated sediments.

1258. Oil heating in reservoirs (within prescribed limits) shall be permitted when the liquid level above the heaters is at least 50 centimetres.

1259. Viscous oils in reservoirs shall only be heated by steam coils under constant supervision of the operating staff.

1260. Work on reservoirs filled with petroleum products must only be carried out using intrinsically safe tools.

1261. The industrial sewerage network in the reservoir tank farm shall be secured by hydraulic gates having a constant water level of at least 0.25 metre and installed in special manholes equipped with cable-operated flappers, led out behind the tank bund. The normal position of the sluice gates shall be closed.

1262. In the event of a crack in the seams or base metal of the body or bottom, the reservoir in operation shall be immediately emptied and cleaned.

No fire or mechanical crack repair work on an oil-filled tank shall be permitted.

1263. Signs indicating that no violations of the established fire safety Rules are permitted shall be posted in visible places throughout the reservoir tank storage and freestanding reservoirs.

1264. To prevent the formation of static electricity charges:

1) samplers made of non-sparking materials with conductive wires soldered to the samplers (the wires shall be connected to the earthing terminals on the reservoir roof);

2) clothing made of fabrics that do not accumulate static electricity shall be used.

1265. No samples of flammable petroleum products may be taken while they are being pumped or injected.

1266. Persons familiar with the properties of petroleum products and fire safety Rules for handling them shall be permitted to take and measure levels.

1267. Measuring levels and sampling of petroleum products shall only be done by fixed gauging systems. In exclusive cases the levels shall be measured and sampled manually through a manhole in reservoirs with an overpressure of up to 2.10 Pa of gas space.

1268. Manholes used for level measurement and reservoire sampling shall be fitted with sealed lids and the gauge opening shall be fitted with spark-free metal rings on the inside.

1269. No operation of drained or leaking reservoirs or reservoirs with defective valves, pipe connections, gland packing, gate valves, fire extinguishing and cooling systems shall be permitted.

1270. A timetable for the scheduled cleaning of pyrophoric sulphurous iron deposits shall be developed for reservoirs storing sulphurous petroleum products.

1271. All construction and installation work in the operating reservoirs tank storages involving the use of open flames (welding, cutting) shall only be undertaken with the written permission of the enterprise's chief engineer.

1272. Trenches excavated during the laying and repair of pipelines in and on the bund shall be immediately backfilled and the bund restored at the end of this work. A temporary bunding shall be installed if the work is interrupted for a long period of time.

1273. No operation of drained or leaking reservoirs, or with defective valves, pipe connections, gland packings, gate valves, fire extinguishing and cooling systems shall be permitted.

1274. Level measurement and sampling shall be done during daylight hours. For sampling or level measurement at night, only explosion-proof battery-operated lamps may be used for lighting, switched on and off only outside the explosion zone, no hand-held lamps may be used.

1275. Shut-off devices in the form of poppet valves, actuated outside of the bund shall be installed at sewer outlets of bunds to remove accidental oil spills and to discharge storm water .

1276. The following shall be prohibited:

1) operation of leaking equipment and shut-off valves;

2) reduction in the height of the bund set out in the project documentation;

3) operation of malfunctioning or cracked reservoirs, as well as defective equipment, instrumentation, product supply lines and stationary fire-fighting devices;

4) planting of trees, shrubs, grass in bunds;

5) installing containers on a combustible base;

6) overfilling of reservoirs and tanks;

7) sampling of reservoirs at the time of discharging or filling oil and oil products;

8) draining and filling oil and petroleum products during thunderstorms.

1277. Pressure vent valves and fire arresters shall be checked as per the manufacturer's technical documentation.

When inspecting ventilation fittings, the valves and nets shall be cleared of ice. They must only be heated using fire-safe methods.

1278. A stock of extinguishing agents and means of supply in the reservoir depots shall be established in the quantity required to extinguish the fire in the largest reservoir.

1279. When renovating the reservoir depot, only tractors and vehicles with spark arresters on the exhaust pipe may enter the area inside the tank bundle, and vehicles may not approach an operating or unprotected reservoir closer than 20 metres.

In each case, a permit to enter the vehicle shall be issued by the head of the enterprise or facility according to the established procedure.

1280. Reservoir depots employees must be familiar with the piping layout and the function of all gate valves so that they can quickly and accurately perform the necessary switching during operation and in the event of an accident or fire.

1281. Excluded by Government Decree No. 919 of 29.12.2017 (shall be enacted ten calendar days after the date of its first official publication).

1282. In case of failure to completely free the pipeline from oil before the repair work, actions shall be undertaken to prevent an oil spill.

Storage of petroleum products in containers

1283. Up to 60 cubic metres of liquids with a flash-point above 120 °C may be stored in underground tanks made of combustible materials, provided that the floor is made of

non-combustible materials and the cover is covered with a layer of tamped earth at least 0.2 metres thick.

1284. Flammable and combustible liquids may be stored together in the same room if their total quantity does not exceed 200 cubic metres of flammable liquids or 1,000 cubic metres of combustible liquids.

1285. Storage areas shall be separated from other rooms by fire partitions with a fire resistance rating of at least EI-45.

1286. Barrels with flammable and combustible liquids in storerooms shall be stacked manually in no more than 2 rows on the floor; barrels with flammable liquids shall be stacked mechanically in no more than 5 rows and barrels with flammable liquids in no more than 3 rows.

A stack width of more than 2 barrels shall be prohibited. The width of the main aisles for transporting barrels shall be at least 1.8 metres and between stacks – at least 1 metre.

1287. Liquid shall only be stored in undamaged containers. Any spillage of liquid must be cleaned up immediately.

1288. Open areas for the storage of oil products in containers shall be fenced with an earthen berm or a non-combustible solid wall at least 0.5 m high with ramps for access to the areas.

1289. The level of the site shall be 0.2 metres above the surrounding area and surrounded by a drainage ditch.

1290. No more than 4 stacks of barrels, 25x15 metres and 5.5 metres high, with gaps of at least 10 metres between stacks, and at least 5 metres between stack and berm (wall), shall be placed within one bunded area.

The distance between the stacks of two adjacent sites must be at least 20 metres.

1291. Canopies of non-combustible materials may be placed over sites.

1292. Petroleum products may not be spilled and packaging material and containers may not be stored directly in storages and bunded areas.

Storage of gas cylinders

1293. Storage areas for flammable gas cylinders shall be located in single-storey, non-roofed, lightly roofed buildings.

Windows of rooms where gas cylinders are stored shall be painted white or fitted with non-combustible sunscreens.

When cylinders are stored outdoors, shelters protecting them from precipitation and sunlight shall be made of non-combustible materials.

1294. No flammable materials may be stored within 10 metres of the cylinder storage area and no hot work may be performed.

1295. Cylinder cabinets and booths shall be made of non-combustible materials and have natural ventilation to prevent the formation of explosive mixtures.

1296. Cylinders with flammable gases shall be stored separately from cylinders with oxygen, compressed air, chlorine, fluorine and other oxidising agents, and from cylinders with toxic gases.

1297. Compressed, liquefied and dissolved gas shall be stored in cylinders complying with the requirements for the construction and safe operation of pressure vessels. The outer surface of the cylinders shall be painted in the colour specified for the gas in question.

1298. When storing and transporting oxygen cylinders, oil (grease) shall not come into contact with oily materials and the cylinder fittings shall not come into contact with oily materials.

When manually repositioning oxygen cylinders, it shall be prohibited to grasp the closure fitting.

1299. When storing, cylinders must not knock against each other, caps and cylinders must not fall to the floor.

1300. Gas storage areas with more than 40 cylinders shall be equipped with serviceable gas analyzers to explosive concentrations. In the absence of gas analysers, the facility manager shall establish procedures for sampling and monitoring.

1301. If gas leaks from cylinders are detected, they shall be removed from storage to a safe place.

1302. Persons wearing shoes lined with metal nails or horseshoes shall be prohibited from entering a storage area where combustible gas cylinders are stored.

1303. Flammable gas cylinders with shoes shall be stored in an upright position in special sockets, cages or other devices to prevent them from falling.

Cylinders without boots shall be stored horizontally on frames or racks. The height of the stack in this case shall not exceed 1.5 metres and the valves shall be covered with safety caps and face in one direction.

1304. No other substances, materials or equipment may be stored in the gas storehouses.

1305. Natural ventilation shall be provided in the flammable gas storage areas.

Procedures for storing agricultural products

Storage procedures for roughage

1306. Rough fodder shall only be stored in annexes separated from farm buildings by blank non-combustible walls (partitions) and ceilings with a fire resistance rating of at least EI-45.

1307. Annexes must only be fitted with direct access to the outdoors.

1308. The hayloft shall be enclosed by an earthen berm and wire fence. The weighing room shall be located outside the hayloft.

The stacks, sheds and stacks of roughage shall be located at least 15 metres from power lines, at least 20 metres from roads and at least 50 metres from buildings and constructions.

1309. The distance from the fencing of hay barns to nearby woodland shall be at least 20 metres, with a perimeter hedging strip of at least 4 metres wide.

1310. The roughage storage area within the production unit shall be located in a designated area. Areas for stacks and pairs of stacks or stacks shall be ploughed along the perimeter with a strip not less than 4 metres wide. The distance from the edge of the strip to a stack located on the site shall be at least 15 m, and to a freestanding stack at least 5 m.

1311. The base area of one stack may not exceed 150 square metres and stacks of baled hay (straw) may not exceed 500 square metres.

1312. Fire breaks between individual stacks, sheds and haystacks must be at least 20 metres. When stacks, sheds and haystacks shall be placed in pairs, the distance between stacks and sheds shall be at least 6 metres, and between pairs - at least 30 metres.

1313. Fire breaks between blocks (20 skips or stacks per block are allowed) shall be at least 100 metres.

1314. Hay with high moisture content shall be stored in conical stacks (bales) with a gap of at least 20 metres between them. In high-moisture hay stacks that are prone to spontaneous combustion, constant temperature control shall be done with regular mercury thermometers, embedded in inch-sized metal tubes and placed in the stack at varying depths.

When the temperature rises above 60°C, the heated hay must be removed.

1315. Tractors and vehicles operating in roughage stores must be equipped with spark arresters and vehicles must have their mufflers forward under the bumper. Tractors and vehicles that are not equipped with spark arresters shall be prohibited from working in the roughage storage area. Before entering the storehouse, drivers must check that the spark arrester is in good working order and securely fastened.

1316. To prevent forage from catching fire from direct contact with exhaust pipes, manifolds or mufflers, tow tractors and vehicles engaged in unloading work shall drive no closer than 3 metres to the stacks.

1317. When loading fodder directly into the body of the vehicle, its engine shall be switched off. Leaving the storehouse shall only be allowed after inspecting the parking place of the vehicle and cleaning the hay (straw) in the vicinity of the exhaust pipe.

1318. The roughage storehouses shall have a water reserve of at least 50 cubic metres in case of fire.

Grain storage procedures

1319. Before harvesting, the grain stores and dryers shall be inspected for suitability for use. Any faults detected shall be rectified before drying and receiving the grain.

1320. Grain storehouses shall be located in freestanding buildings. The gates open outwards and must not be obstructed.

1321. When storing grain in embankments, the distance from the top of the embankment to combustible roof structures and to lighting fixtures and electrical wiring must be at least 0.5 metres.

Fire retarders shall be installed where grain is transported through openings in fire barriers .

1322. The following shall be prohibited:

1) to store other materials and equipment together with the grain;

2) use grain cleaning machines and other machines with internal combustion engines inside storehouses;

3) work on sliding machinery when the gates on both sides of the warehouse are closed;

4) ignition of solid-fuel dryers with flammable and combustible liquids, and of liquid-fuel dryers with flares;

5) operate the dryers with or without defective temperature control and automatic fuel cut-off devices in case of flame extinction in the furnace, the electrical ignition system;

6) fill grains above the level of the conveyor belt and allow the belt to rub against the structure of the conveyor belt.

1323. The temperature of the grain while the dryer is running shall be monitored by taking samples at least every 2 hours.

The dryer's loading and unloading mechanisms shall be cleaned of dust and grain after one day of operation.

1324. The mobile drying unit shall be installed at least 10 metres from the grain store building.

The furnaces of the dryers shall be installed in such a way that no sparks can escape. Spark arresters shall be installed in chimneys and fire breaks shall be made where they pass through combustible structures.

1325. When ventilating grain in a grain store, the fans shall be installed at least 2.5 metres away from combustible walls. The air ducts shall be made of non-combustible materials.

1326. The bearings and other moving parts of the machinery in the dryers shall be greased regularly as per the operating instructions.

1327. The service personnel shall remain in the dryer building at all times during the operation of the dryer and supervise the operation of the dryer.

1328. In mechanised grain stores:

1) the bottom transport gallery shall be made of non-flammable materials and provided with efficient ventilation;

2) the number of exits from the bottom gallery shall be at least two located windows at the beginning and end of the second gallery. Exits to the outside from the bottom transport gallery in multi-bay warehouses shall be located no more than 60 metres apart from each other;

3) upper conveyor galleries (platforms) in storehouses of fire classes III and IV may be made of flammable materials, while in buildings of fire classes I and II - only of non-flammable ones;

4) the width in the gallery aisles shall be at least 0.7 metres.

1329. In interlocked mechanised grain stores:

1) 6-metre fire protection zones with non-combustible materials shall be provided in flammable connecting galleries between warehouses, buildings;

2) conveyor beds in lower and upper galleries, where the belt passes through fire walls, must be made of non-flammable material with a minimum length of 6 metres;

3) the width and height of the opening in the fire wall for the conveyor belt must be as small as possible and no larger than required for the free passage of the belt with the grain.

The opening shall be equipped with an automatically closing fire protection device;

4) fire rated doors with at least EI-60 fire resistance rating and sealed gates shall be installed in the lower and upper galleries to allow service personnel to pass through the fire walls.

1330. When installing stationary mechanisation in existing grain stores:

1) the construction of the elevator towers or drying and cleaning towers shall comply with the project documentation;

2) elevator tubes, discharge tubes, elevator heads and shoes shall be made of non-combustible materials, with the same covers on the inspection hatches.

1331. Machinery and equipment with internal combustion engines must not be used inside production and storage areas

1332. Separate sheds made of combustible materials may be built for the storage of grain up to 1,200 m^2 in area.

1333. In the case of storage of small quantities of different types of seed grains, separate bins may be used with one central aisle at least 1.5 metre wide and two through aisles located on the opposite sides of the store, equal to the width of the opening in the barn door.

1334. Standard wooden breadboards shall serve to separate different batches of grain.

1335. If there are aisles between the hoppers and the walls of the storehouse, they must be at least 0.7 metres wide.

1336. No electric heaters with open heating elements may be used in all buildings and rooms, and no electric heaters of any type may be used in potentially explosive areas.

1337. In storage areas for storing products in bags, sacks, boxes, the height of stacks shall be assumed to allow unobstructed stacking by an electric forklift to a given height, leaving a gap of at least 1 metre between the top row of bags and projecting elements of the floor or roof, as well as electric grids, lighting fittings. Products shall be stored in containers either on pallets or on racks.

1338. Aisles and passageways of at least the following width shall be provided in bakeries and pasta factories when storing sacks of flour:

1) aisles between stacks, at least 12 metres apart - 0.8 metres;

2) distance from stacks to walls - 0.7 metres;

3) driveways for electric forklifts - 3.0 metres;

2) 2.0 metres for platform trolleys.

1339. Aisles shall be provided inside the storage area for the storage of products in containers of the rest of the bakery industry:

1) the one in the centre of the storage area, longitudinally, with a width that ensures the operation of the machinery, no less than 1.25 metres;

2) two transversal ones - against the warehouse door, through, at least the width of the door;

3) between stacks and warehouse walls - at least 0.7 metres wide.

1340. In bakeries and grain processing plants, two gates with through-aisle passages shall be fitted on each side of the storage area for storing products in packagings. The gates shall be positioned so that the storage area is divided into three different sections by the through-aisle against the gates.

1341. Heating appliances shall be applied with a smooth surface and shall be placed at a height that makes it possible to systematically clean them of dust.

1342. The heating appliances must be freely accessible. Heating appliances may not be covered with foreign objects or materials.

1343. Attic booths for installation of expansion vessels must be made of non-flammable or non-combustible materials.

Storage of forestry materials

Maintenance of timber yards

1344. Plans for stacking of timber in timber yards shall be drawn up, indicating the maximum volume of stored material, fire breaks and driveways between stacks, and between stacks and neighbouring properties.

1345. No timber or equipment may be stored in the fire breaks between stacks.

1346. Areas designated for stacking shall be cleared to the ground of grass cover, combustible debris and waste or covered with a layer of sand, earth or gravel at least 0.5 metre thick.

1347. An operational fire extinguishing plan shall be drawn up for each storage area, specifying measures to clear stacks, balance heaps, wood chips, considering the possibility of involving employees and machinery of the enterprise. The plan shall be practised each year prior to the start of the spring and summer fire season with the involvement of all shifts of the enterprise and the relevant fire brigade. The storage area shall be watered periodically during the summer.

1348. Apart from primary fire extinguishing equipment, the storage areas shall be equipped with various types of fire-fighting equipment in the quantities set out in the operational fire-fighting plans. The timber yards shall be supplied with the necessary fire extinguishing water.

1349. No work not related to the storage of timber may be performed in the storage area.

1350. Workers' quarters in timber yards may only be located in separate buildings, observing the fire breaks.

Only factory-made electric heaters may be used for heating these rooms.

1351. Winches with internal combustion engines shall be placed at least 15 metres from the log stacks.

The area around the winch shall be kept free of lumpy waste, bark and other combustible waste and debris. Fuel and lubricants for engine refuelling shall be stored in quantities not exceeding one drum and at least 10 metres from the winch and 20 metres from the nearest stack.

Maintenance procedures for lumber yards

1352. Transport packages shall be placed on only one side of the driveway when stacking and dismantling timber stacks, with the width of the remaining driveway being at least 4 metres. The total volume of unstacked sawn timber may not exceed the daily supply of sawn timber to the storage area.

1353. No transport packages may be installed in fire breaks, driveways, accesses to fire water sources.

1354. Reassembly and installation of packages in case of temporary outage of machinery, storage of inventory roofs and cushioning material shall be done at special sites.

1355. Transport bags shall be wrapped with waterproof paper (if this is not part of the single process) at special designated areas.

1356. Used waterproof paper, scraps and trimmings shall be collected in containers.

1357. In an enclosed warehouse, the width of the aisle between stacks and projecting parts of the building walls must be at least 0.8 m. Aisles in front of the warehouse door openings must be as wide as the door width, but not less than 1 metre..

1358. No partitioning or office space shall be permitted in enclosed stores.

1359. The floors of enclosed storage rooms and areas under sheds must be made of non-flammable materials.

Maintenance procedures for wood chip storage areas

1360. Wood chips may be stored in enclosed storage areas, bunkers and outdoor areas with a base of non-flammable material.

1361. Booths housing the electric motors of chip conveyors shall be provided with a minimum of fire resistance class II.

1362. To monitor the temperature of the wood chip heating inside the bunker, wells made of non-flammable material shall be envisaged for the installation of thermoelectric transducers.

Maintenance of coal warehouses

1363. Coal storage sites shall be planned so as to avoid flooding by floodwater or groundwater.

1364. It shall be prohibited to:

1) stack freshly mined coal on old coal dumps that have been sitting for over one month;

2) take into storage coal with obvious pockets of spontaneous combustion;

3) transport burning coal on conveyor belts and unload them into rail vehicles or hoppers;

4) locate coal stacks over heat sources (steam pipelines, hot water pipelines, heated air ducts) and over installed electrical cables and oil and gas pipelines.

1365. When stacking and storing coal, no wood, fabric, paper or other combustible materials shall be allowed in the stacks.

Coal of different grades shall be stacked in separate stacks.

1366. Coal entering the storage area for long term storage shall be stacked as it is unloaded from the wagons as soon as possible. Unloaded coal must not be stored in unshaped piles or in bulk for over two days.

For maintenance work on the stacks, as well as the passage of machinery and fire engines, the distance from the base of the stacks to the fence or tap track foundation must be at least 3 metres, and to the outer edge of the rail head or road kerb at least 2 metres.

No solid fuels may be filled in the passageways and no equipment may be obstructed.

1367. The storage area shall be systematically monitored for temperature in the coal stacks by installing monitoring iron pipes and thermometers in the slopes or by other safe means.

If the temperature rises above 60°C, the stack shall be sealed where the temperature rises, the heated coal shall be removed or other safe methods shall be used to reduce the temperature.

Stacks where there is an increase in temperature shall be expended first.

1368. Coal must not be extinguished or cooled with water directly in the stacks. Coal that has caught fire must be extinguished with water only after it has been removed from the stack .

1369. Spontaneously ignited coal must not be stacked again after cooling or extinguishing .

1370. Coal storage rooms in the basement or ground floor of industrial buildings shall be separated by fire barriers (walls and partitions).

Maintenance of storage facilities for combustible fibre materials

1371. All fibre materials shall be stored in covered storage facilities, unless it is permitted to store them in open areas and under sheds.

1372. No hitting with hooks on metal bale packaging may be allowed during unloading, loading and stacking of fibre material bales.

1373. Stacks and overhangs of fibres shall be arranged sequentially in nests, groups and sectors.

1374. Over 300 tonnes of fibre in a stack may not be exceeded.

1375. The dimensions of the stack shall be no more than 22x11 metres, no more than 8 metres in height.

1376. There shall be no more than six stacks or sheds in the nest, with a gap of at least 15 metres between stacks and 20 metres between sheds in all directions.

1377. A maximum of four nests (24 stacks or canopies) shall be placed in a group, the distance between the nests shall be at least 30 metres in all directions.

1378. A maximum of four groups (96 stacks or canopies) shall be envisaged in a sector, with gaps between groups of at least 50 metres in all directions.

1379. No gaps of less than 100 metres between sectors shall be permitted.

1380. Places occupied by storage areas, sheds and open areas for storing fibre materials shall be fenced, and the distance from the fence shall be at least 5 metres.

1381. Lightly flammable fibre materials may only be stored in bales. Broken bales shall be stored in separate areas or designated areas. They shall be dispatched for recycling in the first instance.

1382. Bales of fibre material in enclosed storage shall be stacked in such a way that one 2 metre wide longitudinal aisle and cross aisles of the same width are left against each door. Bales shall be stacked so that the distance from the top of the bales to the electric lights equals at least 1 metre.

1383. Production waste must not be stored together with raw materials and finished products.

1384. Stacks of fibre material in open areas shall be covered and sheds shall be tarped on all sides.

1385. Fibre materials shall be covered with a tarpaulin when transported on vehicles, tractors (tractors). Smoking shall be prohibited during transportation.

1386. Aisles in enclosed stores and under sheds as well as gaps between stacks in open areas shall be kept clear.

1387. Rail vehicles (except steam locomotives) and motor vehicles without spark arresters shall not approach sheds and stacks of fibre materials closer than 5 metres and tractors closer than 10 metres. Limit bars must be fitted at these points. Vehicles approaching enclosed stores, sheds and stacks of fibre materials must be driven on the opposite side to the exhaust pipe and the silencer must be fitted with a working spark arrester.

11. Maintenance of petrol-filling stations

General provisions

1388. Under the provisions of this section, owners of petrol-filling stations shall draw up a fire safety instruction which shall specify:

1) the procedure for accepting petroleum products, the conditions for their storage and release to consumers;

2) site maintenance procedure;

3) maintenance of fire-fighting equipment, activating it and summoning fire-fighting units when a fire is detected;

4) procedures for the collection, storage and disposal of oily cleaning materials and sand, storage of special clothing, cleaning of the premises and cleaning of technological equipment;

5) the specific characteristics of petrol-filling stations.

1389. In case of fire hazardous situations at petrol stations, power supply to technological systems (except power supply to emergency and fire protection systems) shall be shut off, operation of petrol stations shall be suspended and its territory shall be cleared from vehicles and visitors and simultaneously the elimination of fire hazardous situation shall be initiated.

1390. Excluded by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall be enacted ten calendar days after the date of its first official publication).

1391. In case of a fuel spill in the immediate vicinity of a tanker truck (in case of a petrol spill this distance shall be taken as 6 metres from the edge of the spill to the tanker truck dimensions and 3 metres in case of a diesel fuel spill) the tanker truck engine shall only be started and removed from the area of petrol stations (if it does not endanger human life) when the spilled fuel ignites or after removing contaminated sand that is used to cover the fuel spill to eliminate the fire hazard situation

When a spill occurs over a longer distance, the tanker must immediately move away from the petrol station area, bypassing the spill at least 6 metres from the petrol spill boundary and 3 metres from the diesel spill boundary;

1392. Excluded by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall come into force ten calendar days after the date of its first official publication).

1393. If a fire breaks out at petrol stations, the fire brigade shall be immediately informed of the fire and fire-fighting equipment shall be used and the area shall be cleared of visitors and vehicles at the same time..

1394. All employees of petrol stations and tanker truck drivers shall receive special fire safety training consisting of fire safety briefing (initial and refresher) and minimum fire-fighting training.

Maintenance of the premises, buildings, structures and grounds of petrol stations

1395. Gas station areas shall be planned and landscaped and continuously cleaned of combustible debris and spilled petroleum products.

1396. Fire breaks between buildings and structures may not be used for storage of various substances and materials, placement of vehicles and construction of both permanent and temporary facilities.

1397. Vehicles shall be allowed to drive on one side of the filling station grounds with separate entry and exit.

1398. A traffic plan and fire safety instructions for drivers and passengers shall be displayed at the entrance to the petrol stations.

1399. Driveways in the area of petrol stations, accesses to water sources and approaches to primary fire extinguishing equipment shall be kept clear. In winter the passages and passageways shall be cleared of snow.

1400. Metal boxes with tightly closed lids shall be installed to collect used wiping material and sand soaked in oil products. At least once a week, wiping material and sand impregnated with oil products shall be removed outside petrol-filling stations (hereinafter referred to as PFS).

1401. No smoking shall be permitted in the PFS area.

1402. All PFS entrances and exterior installations shall be marked with a sign stating:

1) the explosion and fire hazard categories of the premises as per the General Requirements for Fire Safety technical Rules;

2) hazardous or flammable zones according to the Electrical Installations Directive;

3) the name and initials of the employee responsible for fire safety;

4) fire brigade call numbers.

1403. The following shall be developed and displayed in conspicuous places for PFS:

1) fire safety instructions;

2) building plans showing existing rooms, escape routes, fire extinguishing equipment and alarm locations.

1404. The PFS shall be equipped with a rigid tow bar, at least 3 metres long, for emergency evacuation of a burning vehicle from the territory of the gas stations.

1405. The PFS shall be equipped with safety signs and road signs, including signs prohibiting smoking and the use of open flames, signs regulating the movement of passengers and vehicles being refuelled.

1406. The PFS may include the following service and amenities buildings for filling station personnel: operator's room, administration and catering rooms, security service as well as storerooms for special clothing, tools, spare parts, instruments and equipment. In addition to those mentioned above, on the territory of filling stations with underground tanks it shall be permitted to locate service buildings for passengers, drivers and their vehicles.

The passenger and driver service areas may accommodate a convenience store, a cafeteria and lavatories, and vehicle maintenance and washing facilities for vehicle servicing. The premises of a petrol station with above-ground tanks, in addition to the premises for the personnel of the petrol station, may also include a convenience store without a sales area.

1407. PFS buildings shall be equipped with central heating systems.

Factory made oil-fired electric heaters that meet the fire safety requirements may be installed in the rooms of the filling station, provided that the required clearances to

combustible structures and materials are observed. It shall be prohibited to stack combustible materials (special clothing, cleaning material) on heating appliances and piping, or to dry clothes and shoes on heating appliances.

No heating systems or appliances using open flames may be used on the premises or in the buildings of the filling station.

1408. Service personnel's special clothing shall be stored in metal cabinets, suspended from the ceiling.

1409. If a petrol station is located near crops where a flame can spread (grain crops, cotton) or steppe areas, the borders of the petrol station must be ploughed along a minimum width of 4 metres adjacent to the crops and steppe areas.

Operating procedures for process equipment

1410. The PF station’s technological equipment must:

1) comply with the design, technical documentation and technical conditions;

2) have control and regulation instruments in good working order;

3) be sealed.

1411. Process equipment must not be operated when:

1) any fuel leaks;

2) absent, defective, disconnected or with overdue testing of monitoring and control devices;

3) there are any malfunctions.

1412. No structural modifications may be made to the technological equipment that increase the fire hazard level of the filling station.

1413. Monitoring and control devices shall be sealed and marked with maximum permissible parameters (pressure, temperature, concentration, filling level) to ensure the fire-safe operation of the process equipment.

Warning signals (light or sound) shall be automatically generated if at least one parameter deviates from the permissible limits.

1414. The operating parameters of the emergency and fire protection systems must not be changed without the agreement of the petrol station process system manufacturers.

1415. The main and auxiliary process equipment shall be provided with static electricity protection.

1416. Covers and fittings of flanges, connections, fittings and devices separating fuel and its vapours from the atmosphere shall be fitted with non-sparking and oil- and environmentally-resistant gaskets where they come into contact with the fittings.

These covers and plugs, provided to be opened during operation, shall be made of non-sparking material.

1417. Fuel storage tanks shall be equipped with deaeration lines.

Deaeration line pipework shall be fitted with flame arresters or breather valves, with built-in flame arresters that remain operational at any time of year.

Procedure for repair and maintenance work

1418. Work in areas where flammable vapour/air mixtures may occur must be carried out using intrinsically safe tools and wearing clothes and shoes which cannot cause sparks.

1419. Transport, moving on site, installation, repair of used tanks shall only be done after complete removal of fuel, steaming with water steam, flushing with warm water, purging with inert gas and checking for fuel vapours with a gas analyser.

The fuel vapour concentration in the tank must not exceed 20% of the lower flammable concentration limit.

1420. Non-flammable gases (nitrogen, carbon dioxide) shall be used for the pneumatic leak tests of the filling station process systems (tank interwall, tank interior, pipework). If leakage is detected, the operation of the filling station shall be suspended.

1421. The water containing solids (sludge) shall be removed from all types of reservoirs by the closed method. The equipment used for this purpose shall be made of non-sparking material, designed to work with petrol and diesel fuel. When using hand pumps, sludge may only be discharged into an enclosed tanker with as little open evaporation area as possible. All hatches and nozzles not associated with this operation shall be closed during deslurring. The slurry tanker shall be placed on a pallet adjacent to the reservoir and earthed. Multi-compartment reservoirs shall be emptied separately for each compartment.

After the sludge removal is completed, the sludge shall be removed outside the petrol station area.

1422. The fire prevention device or breather valve must not be removed from the outlet of the deaeration system pipework without the pipework being hermetically sealed with a shut-off valve. The type of fire prevention device shall be made suitable for the conditions of its normal operation in the climatic conditions of the area of operation.

1423. If a fuel vapour recirculation line from the vehicle's fuel tank to the reservoir is fitted to the process system, the tank deaeration line must not be blocked in order to recirculate the fuel vapour.

1424. The maintenance of petrol station equipment, routine maintenance, metrological tests of instrument and safety equipment shall be performed in strict compliance with the schedule of these works. No maintenance work may be undertaken that is not described in the maintenance documentation for the process equipment. Such work shall be performed in the maintenance workshops.

1425. The facility manager shall issue a written permit to carry out repair work on the territory, buildings, facilities, premises, technological systems of petrol stations.

Operating procedures for fuel reception and dispensing equipment

1426. Fuel from tanker trucks shall be discharged in a closed circuit. No fuel vapour escape into the environment, except in tank and tanker truck breathing apparatus, shall be permitted.

1427. Prior to discharging fuel from the tanker truck, the fuel level in the tank shall be measured and the safety devices shall be inspected to ensure that they are in good working order. The discharge process shall be supervised by the petrol station employees and the tanker driver.

1428. In the event of a change of fuel type in the reservoir (petrol - diesel fuel), the latter shall be thoroughly cleared of the previously stored product and an inscription indicating the type of fuel stored shall be made on the reservoir body or on visible areas of the filling pipes of underground reservoirs.

1429. In a multi-chamber tank, petrol and diesel fuel may be stored simultaneously if this is stipulated in the technical conditions and the technical documentation for the technological system.

1430. All vehicles and unauthorised persons shall be excluded when fuel tankers enter the petrol-filling station. No two or more fuel tanks may be present at the petrol-filling station at the same time.

1431. At least two employees of the petrol station shall discharge the fuel from the tanks and the following conditions shall be fulfilled:

1) a portable powder fire extinguisher of at least 100 litres capacity is installed at the refuelling area for tanker trucks;

2) the precipitation tray polluted by oil products from the tanker truck refuelling area is closed and the fuel spillage drainage pipe to the emergency tank is opened;

3) the tanker truck is earthed, and then the operation of emptying the fuel into the fuel station's tanks may be commenced.

When discharging an oil product from a road train, each tanker shall be individually earthed until it is completely emptied.

Footnote. Paragraph 1431 as amended by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall come into effect ten calendar days after the date of its first official publication).

1432. The flexible copper earthing conductor shall be permanently connected to the body of the tanker, and shall have a connection device (clamp, bolt-on lug) on the end to the earthing switch.

No earth conductors may be connected to painted or soiled metal parts of the tanker truck.

1433. When refuelling vehicles at a petrol-filling station:

1) motorbikes and scooters shall be driven to the fuel pumps with their engines switched off, starting and stopping at a distance of at least 15 metres from the pumps; cars shall be driven on their own;

2) prior to starting the engine, the driver or service personnel of the petrol station shall wipe vehicle parts that are contaminated with petroleum products dry;

3) oil products spilled on the ground shall be sprinkled with sand and the soaked sand and wiping materials shall be collected in metal boxes with tightly closed lids and removed from the petrol station area at the end of the working day;

4) a distance of at least 1 metre shall be kept from the vehicle standing underneath the petrol station and the vehicle following it in the queue.

1434. The following shall be prohibited at the petrol-filling station:

1) refuelling vehicles with engines running;

2) passage of vehicles over underground tanks, unless this is stipulated in the technical conditions and technical and operational documentation for the technological system used, agreed and approved as per the established procedure;

3) filling fuel tanks and dispensing fuel to consumers during thunderstorms and during the risk of atmospheric discharges;

4) entering tractors that are not equipped with spark arresters on the premises of a petrol-filling station where petrol is received, stored or dispensed;

5) repair work not directly related to the repair of the equipment, buildings and facilities of the petrol-filling station;

6) refuelling of vehicles with passengers (except passenger cars with at least four doors);

7) entering vehicles laden with explosives, compressed and liquefied flammable gases, flammable and combustible liquids, flammable materials, poisonous and radioactive substances and other hazardous substances and materials.

Operating procedures for mobile petrol stations

1435. Mobile petrol stations shall be located on designated sites.

1436. Prior to operating a mobile petrol station on a designated site:

1) the tightness of the station shall be inspected on the instrumentation and visually;

2) the grounding conductor of the petrol stations shall be connected to the grounding device of the site;

3) a tray shall be provided to fit it under the vehicle's fuel tank;

4) barriers shall be installed to limit the access of vehicles to the petrol-filling station by at least 1 metre;

5) a warning sign and an information board shall be erected.

Arrangements for communication and fire-fighting equipment

1437. Petrol-filling stations shall be equipped with a public address system, a telephone or radio system to enable the fire brigade to be called immediately in the case of fire.

1438. The industrial and public spaces of a petrol-filling station shall be equipped with fire extinguishers depending on their extinguishing capacity, area and fire class with regard to the requirements of Annex 17 of the General Requirements for Fire Safety Technical Rules.

1439. Hand-held carbon dioxide or powder fire extinguishers shall be available for extinguishing fires on electric pistols and tank fittings.

1440. Mobile petrol stations shall be equipped with one 10 litre air-foam fire extinguisher and one 5 litre powder fire extinguisher.

1441. Fire extinguisher locations shall be marked with appropriate directional signs.

12. Construction and installation work procedures

Maintenance of construction areas, buildings and premises

1442. Prior to the commencement of construction, any structures and facilities located within the fire breaks shall be demolished on the construction site.

1443. Fire safety measures for all phases of construction must be included in the construction project for the construction of buildings and structures.

Footnote. Paragraph 1443 as reworded by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall be put into effect ten calendar days after the date of its first official publication).

1444. Industrial, storage and auxiliary buildings and facilities on the construction site shall be located as per the duly approved master plan developed as part of the construction organisation project.

1445. A construction area of 5 hectares or more shall have at least two entrances on opposite sides of the site. The roads shall be paved in a manner suitable for the passage of fire-fighting vehicles at all times of the year. The width of the entrance gate shall not be less than 4 metres.

Plans showing buildings and auxiliary structures under construction, entrances, driveways , water sources, fire extinguishing equipment and communications shall be posted at the entrance to the construction site.

1446. Free access shall be ensured to any structures (including temporary buildings), open storage of building materials, structures and equipment that are under construction or in use.

Driveways and roads to buildings under construction shall be completed by the start of the main construction work. Driveways shall be arranged on two longitudinal sides along buildings over 18 metres wide and on all sides of the building over 100 metres wide. No distance from the edge of the carriageway to the walls of buildings, structures and platforms exceeding 25 metres shall be permitted.

1447. Driveways and entrances to premises and fire water sources as well as access to fire-fighting equipment and appliances shall always be kept clear. Fire breaks between buildings must not be used for the storage of materials, equipment, packaging or for parking.

All roads, driveways, entrances and railway crossings shall be kept in good condition and free passage of fire-fighting vehicles shall be ensured.

Crossings, bridges or temporary detours shall be installed for pipelines or cables installed across roads. If repair work is carried out or roads or passageways are temporarily closed, the general contractor shall immediately notify the nearest fire brigade.

1448. The area used for open storage of combustible materials, as well as production, storage and auxiliary buildings made of combustible materials shall be cleared of dry grass, weeds, bark and chips.

1449. Flammable building materials (lumber, tarpaulin, roofing felt), products and structures made of flammable materials, as well as equipment and goods in flammable packaging shall be stored in stacks or groups of no more than 100 m2 in the open areas. The clearance between stacks (groups) and from them to buildings or outbuildings under construction shall be no less than 24 metres.

1450. Separate containers and utility trailers shall be placed in groups of up to 10 in a group. The spacing between groups of these structures and from them to other buildings shall be at least 18 metres.

Temporary constructions shall be located at least 18 metres away from buildings under construction and other buildings or by blank fire walls.

1451. Temporary workshops and stores (except for stores of combustible substances and materials, stores of high-value and valuable equipment and equipment in combustible packaging, production rooms or equipment connected with the handling of combustible materials) may be located in structures under construction, provided the provisions of this section are observed.

Administrative/domestic rooms shall be located in parts of buildings separated by type 1 fire partitions and type 3 ceilings.

No temporary warehouses, workshops or administrative offices may be located in buildings under construction made of unprotected load-bearing metal constructions and panels with flammable plastic insulation.

1452. No people shall be permitted to live on the construction site, in buildings under construction and in temporary accommodation buildings.

1453. Excluded by Decree No. 921 of the Government of the Republic of Kazakhstan of 13.12.2019 (shall be enacted ten calendar days after the date of its first official publication).

1454. Unquenched lime shall be stored in closed, freestanding warehouses. The floor of these rooms shall be at least 0.2 metres above ground level. Dry lime shall not be exposed to moisture during storage.

Lime pits shall be located at least 5 metres from the lime storage area and at least 15 metres from other buildings, structures and stores.

1455. In reconstruction, expansion, technical refurbishment, overhaul and commissioning projects in stages, the part under construction shall be separated from the existing part by type

1 temporary fire walls and type 3 ceilings. The conditions for the safe evacuation of people from parts of buildings and structures shall not be violated.

1456. Buildings, temporary structures and outbuildings under construction shall be equipped with primary fire extinguishing equipment as per the standards for primary fire extinguishing equipment for buildings, structures and outbuildings under construction and reconstruction under Annex 7 hereto.

1457. The internal fire water supply and automatic fire extinguishing systems envisaged by the project shall be installed at the same time as the construction of the facility.

The fire water supply system shall be operational by the start of finishing work, and the automatic fire extinguishing and alarm systems shall be operational by the time of commissioning (in cable structures - prior to cable laying).

1458. The design fire stations shall be constructed in the first instance. The use of the building for purposes other than those for which it is intended shall be prohibited.

1459. Special insulated rooms for the fire brigade or volunteer fire brigades and fire-fighting equipment shall be foreseen prior to the construction of the main structures and the building base.

Construction and installation work procedures

1460. Stairs in buildings of 3 or more storeys shall be assembled at the same time as the staircase.

1461. Wooden ladders shall only be used in stairwells up to a maximum of two storeys.

1462. Incombustible steps shall be covered with combustible materials during construction to protect them from damage.

1463. Exterior fire escape ladders, risers, dry pipes and railings on the roofs of buildings under construction shall be installed as soon as the load-bearing structures are installed, and in buildings over 50 metres in height, as each successive storey is erected.

If there is no possibility of installing dry pipes as specified in the project documentation, temporary 89 millimetre diameter dry pipes shall be installed with a fire hydrant on each floor .

Provisional intermediate tanks of at least 3 metres cubic metres with motor pumps shall be installed as the building is erected, starting from a floor of 50 metres and above. The interval between temporary intermediate tanks with motor pumps shall be determined by calculating the head loss of the extinguishing agent to the floors above.

Footnote. Paragraph 1463 as reworded by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall come into force ten calendar days after the date of its first official publication).

1464. Metal scaffolding shall be used when constructing buildings of three or more storeys.

The scaffolding of the building shall be equipped with one ladder or stepladder for every 40 metres of perimeter, but with at least two ladders (stepladders) for the entire building.

Scaffolding structures must not be covered (insulated) with combustible materials.

1465. At least two non-combustible ladders shall be provided to evacuate people from tall buildings and structures (chimneys, cooling towers, dams, silos) for the duration of construction.

1466. Formwork made of combustible materials shall be erected for no more than three storeys at a time. Once the concrete has reached the required strength, the timber formwork and scaffolding shall be removed from the building.

1467. No work inside buildings and structures using combustible substances and materials may be carried out simultaneously with other construction and installation work involving the use of open flames.

1468. The protection of steel structures to increase their fire resistance shall be done at the same time as the construction of the building.

1469. If there are combustible materials in buildings, measures shall be applied to prevent the spread of fire through openings in walls and ceilings (sealing the joints of internal and external walls and interfloor ceilings, sealing the utility penetrations with the required fire-resistance limits).

1470. Work involving the installation of structures with combustible insulation or the use of combustible insulation must be performed with a permit issued by the contractor and signed by the person in charge of fire safety in construction.

The “flammable - combustible thermal insulation” signs shall be posted at the place of work.

1471. Laying of combustible thermal insulation and waterproofing membrane on the roofing, execution of cement-sand mortar screed, placement of protective gravel layer, installation of building envelopes with combustible thermal insulation shall be made by sections of not more than 500 m2 and by sections of not more than 1,000 m2 of flammable thermal insulation.

1472. Cement-sand mortar screed on reinforced concrete slabs of at least 30 millimetres shall be used to cover industrial buildings, the joints between the reinforced concrete slabs shall be thoroughly grouted.

1473. No amount of combustible insulation and roofing roll materials exceeding the shift requirement may be exceeded at the work site.

1474. Combustible thermal insulation in the cover of large buildings, after 50 metres (if the enclosure is 80 metres or more in length), shall be separated by fire belts at least 6 metres wide, made of expanded clay gravel or other non-flammable materials.

1475. Flammable thermal insulation shall be stored outside the building under construction in a separate structure or in a special site at least 18 metres away from buildings, structures and warehouses under construction and temporary use.

At the end of the work shift, no unused combustible thermal insulation, unassembled panels with such thermal insulation and roofing roll materials may be left inside or on the covers of buildings, or in fire breaks.

1476. Construction and installation work in refrigerator buildings and similar structures shall be performed in sequence by compartments with fire safety.

1477. After the thermal insulation in the compartment has been installed, its residues shall be removed and cover layers of fire protection shall be applied immediately. The area of unprotected combustible thermal insulation during the works shall be not more than 500 m2 and in case of non-combustible 1,000 m.

1478. In fire belts, zones in cold rooms, a tight connection shall be envisaged between the insulation and the building envelope made of non-combustible materials.

No openings may be left unsealed in the fire belts or zones. The thermal insulation of a subsequent compartment may only be started after the fire belts of the previous zones have been checked and accepted.

1479. If the metal panelling of panels with combustible insulation is damaged, immediate steps must be taken to repair and restore it by means of mechanical connections (bolting).

1480. All project-specific fencing and exits to the building envelope (from stairwells, exterior staircases) shall be installed prior to the installation of polymer insulation panels, laying of polymer insulation on the covering, and roofing work. Telephones or other means of communication shall be installed at the exits to the covering to report a fire.

1481. A temporary fire water supply line shall be installed on the roof for fire-fighting purposes during roofing works of 1,000 square metres or more with combustible thermal insulation. The distance between the fire hydrants shall be taken as a minimum of two jets of water with 5 litres/second each to any point on the roof.

1482. No electric welding or other hot work may be done on roof waterproofing and vapour barriers or on panels with combustible insulation.

All work involving the use of open flames shall be done prior to the use of combustible and non-combustible materials.

1483. No bitumen mastic may be applied to the ribs of the profiled flooring when the vapour barrier layer is glued and no thickening of the mastic layers shall be allowed with deviations from the design.

1484. Heavy-duty roll-fed roofing units shall only be used for roofing on reinforced concrete slabs and roofs with non-combustible insulation.

1485. Unit fueling on the roof shall be performed in a designated area provided with two fire extinguishers and a sand box. No fuel for filling units or empty fuel containers may be stored on the roof.

Handling of mastics, bitumen, polymers and other flammable substances and materials

1486. Premises and working areas where combustible substances are handled (preparation of the composition and application on products) which give off explosive vapours must be provided with supply and exhaust ventilation. The rate of air exchange for safe work performance shall be specified in the work project based on the calculation.

1487. When combustibles are used, no more than the shift requirement shall be exceeded at the workplace. Tanks containing flammable substances must only be opened before use, and closed at the end of work and returned to storage.

Containers from flammable substances shall be stored in a designated place outside the premises of the new building.

1488. Combustible waste shall be collected in a special sealed container and disposed of from the premises in a designated area.

1489. Flammable coatings shall be applied to the floor in natural light, in sections of maximum 100 square metres, under the supervision of the person in charge of the work. Work shall be commenced at locations furthest from room exits and in corridors once work in the rooms has been completed.

1490. Epoxy, adhesives, mastics, including synthetic resin paints, and tile and roll-fed polymeric materials shall be applied after all construction and sanitary works have been completed and before the final painting of the premises.

1491. Tools made from non-sparking materials (aluminium, copper, plastic, bronze) shall be used for work involving flammable substances. Tools and equipment used when working with flammable substances shall be washed outdoors or in a ventilated area.

1492. Work with flammable substances and materials (rolls, tiles, epoxy resins, mastics containing flammable substances) shall be performed by persons trained in the minimum fire safety programme and instructed in fire safety measures before starting work.

Premises where combustible substances and materials are handled shall be fitted with primary fire extinguishing equipment at the rate of two fire extinguishers and a fire blanket per 100 square metres of space.

1493. Flammable liquids stored in freestanding buildings made of non-combustible materials and equipped with ventilation and in isolated rooms at the outer wall with window openings and an independent escape route.

1494. Work with flammable substances and plastics must only be done with the written permission of the person responsible for the fire protection of the building.

1495. Insulating mastics and bituminous cements shall be cooked and heated in special efficient boilers with tightly closing lids made of non-flammable materials. The boilers shall be filled to a maximum of 3/4 of their capacity. Dry filler shall be loaded into the boiler.

No bitumen cooker may be installed directly on the roof.

1496. A non-flammable shelter shall be fitted over the asphalt melting tank when it is installed outdoors. A set of fire-fighting equipment (fire extinguishers, shovels and dry sand) shall be provided near the digester. The mastic and bitumen cooking and heating area shall be

surrounded by a shaft not exceeding 0.3 metres in height. The furnace opening of the boiler must be equipped with a flap made of non-flammable material. Boilers that heat bituminous compositions must not be left unattended.

1497. The boilers shall be installed in groups of a maximum of three and the distance between groups of boilers shall be at least 9 metres. The area for melting and heating mastic and bitumen shall be allocated in a designated area and shall be located at a distance of:

1) from buildings and structures of V, IV, IVa fire resistance classes - at least 30 metres;

2) from buildings and structures of III, IIIa, III6 fire resistance classes - at least 20 metres;

3) from buildings and structures of fire resistance classes I and II - at least 10 metres;

1498. To prevent mastic from pouring into the furnace and catching fire, the boiler must be installed at an angle so that its edge above the furnace is 5-6 cm higher than the opposite edge.

1499. After work is completed, the boiler fires shall be extinguished and flooded with water.

1500. When portable boilers are operating on liquefied gas, a maximum of two gas cylinders shall be installed in ventilated cabinets made of non-combustible materials, at a distance of at least 20 metres from the boilers in operation.

1501. These cabinets shall be kept locked at all times.

1502. Bituminous compounds shall be heated indoors in electrically heated drums. No open fire may be used for heating.

1503. When working with bitumen mastic, the delivery:

1) When working with bitumen mastic, hot bitumen mastic shall be delivered to the workplace (floors) by mechanised means in special metal drums with tightly closing lids. The lids shall be equipped with locking devices, excluding the opening if the drum falls down. No mastic may be carried in an open container;

2) by pump through a steel pipe secured to the building structure in vertical sections, avoiding leaks. The mastic may be delivered to horizontal sections by means of a heat-resistant hose.

1504. A 40-50 centimetre-long protective sleeve shall be fitted where the hose connects to the steel pipe.

1505. After filling the mastic applicator's tank, the mastic shall be pumped out of the pipeline.

1506. When mixing, heated bitumen shall be poured into the solvent (petrol, turpentine). Mixing may only be done with a wooden stirrer.

1507. No open fire within a radius of 50 metres from where bitumen and solvents may be mixed.

Welding procedures

General provisions

1508. Welding and other hot work involving the use of open flames shall be done as specified in this section.

1509. Welding and other hot work areas shall be:

1) permanent ones - organised in specially equipped workshops, workshops or open areas for this purpose;

2) temporary ones - when hot work is carried out directly in buildings, dwellings and other structures under construction or reconstruction, on enterprise premises for the purpose of repairing equipment or installing building structures.

1510. A centralised electricity and gas supply shall be ensured for permanent hot work locations of over 10 positions (welding, cutting workshops).

1511. If there are no more than 10 welding stations in a welding shop, each station may have one spare cylinder with oxygen and combustible gas. The spare cylinders shall be protected with shields made of non-flammable materials or kept in special additions to the workshop.

1512. Floors in areas where permanent welding areas are organised must be made of non-combustible materials. Wooden end floors on a non-combustible base may be used in areas where welding is performed without preheating of the parts.

1513. Persons who have passed the technical minimum and fire safety tests in the appropriate order may carry out welding and other hot work activities.

1514. Permanent locations for hot work in open areas and special workshops shall be specified by the order of the head of the enterprise (organisation).

1515. Only with the written permission of the site manager or the person acting as the site manager shall temporary electric welding and other hot work areas be determined (Annex 5 hereto).

1516. Performing hot work without a written permit at construction sites and areas safe from fire hazards shall only be done by suitably qualified persons who have mastered the minimum fire training programme and the provisions hereof. Manager of the facility shall approve the list of personnel authorised to undertake unauthorised hot work without a written permit.

1517. A permit for temporary (one-off) hot work shall only be issued for a working shift. For the same work, if it is to be carried out over several shifts or days, a second permit from the facility administration shall not be required.

In such cases, for each subsequent work shift, after a re-inspection of the work site in question, the administration shall confirm the permit previously issued, and an appropriate record shall be made of it. For the purpose of ensuring timely control of hot work, permits for hot work shall be submitted by the construction administration to the branch fire brigade, or where there is no branch fire brigade, to the voluntary fire brigade on the eve of the day of hot work.

1518. Fire extinguishing equipment (fire extinguisher, box with sand and shovel, bucket with water) shall be provided at the hot work sites. If there is an internal fire water supply at the site, fire hoses with hoses shall be routed from the fire hydrants to the place where the fire work is to be carried out. All workers engaged in hot work shall skillfully use primary fire extinguishing equipment.

1519. The person in charge of hot work shall inspect the availability of fire extinguishing equipment at the workplace.

1520. Permanent hot work areas may not be located in fire and explosion hazardous areas.

1521. Process equipment where hot work is to be carried out shall be brought into a flameproof condition by:

1) exemption from explosive and flammable substances;

2) disconnection from existing utilities (with the exception of utilities used in preparation for firing operations);

3) pre-cleaning, washing, steaming, venting, sorption, phlegmatisation.

1522. The water steam supply temperature for steaming inside the process equipment shall be assumed to be 80 % of the auto-ignition temperature of the flammable steam (gas).

1523. Flushing of process equipment shall be done when the concentration of vapours (gases) therein is outside their ignition limits or electrostatically safe.

1524. The rooms, as well as equipment and communications in which hot work is carried out, shall be cleared in such a way as to prevent the formation of explosive vapour and dust-air mixtures and the emergence of sources of ignition.

1525. To prevent incandescent metal particles from entering adjacent rooms, neighbouring floors, all inspection, technological and other hatches, ventilation, installation and other openings in ceilings, walls and partitions of rooms where hot work is carried out, shall be closed with non-combustible materials.

1526. The hot work area shall be cleared of combustible substances and materials, within the radius specified in Annex 6 hereto.

1527. Installations, flooring, finishes and cladding as well as insulation and parts of equipment made of combustible materials that are within the specified radii shall be protected from sparks by metal screens or other non-combustible materials and, if necessary, sprinkled with water.

1528. In rooms where hot work is performed, all doors connecting the said rooms with other rooms, including the airlock vestibule doors, shall be tightly closed. Depending on the time of year, the temperature in the room, the duration, scope and hazard level of the hot work , the windows shall be opened, where possible.

1529. Rooms where flammable and combustible liquids, vapours or gases may accumulate must be ventilated before hot work is performed.

1530. Welding and cutting work in buildings and premises where combustible materials are used must be enclosed by a solid partition made of non-combustible material. In this case

the height of the wall shall be at least 1.8 metres, and the clearance between the wall and the floor shall be not more than 0.5 metres. To prevent the dispersion of incandescent particles, the said gap shall be enclosed in a mesh of non-combustible material with mesh size not exceeding 1.0 x 1.0 millimetre.

1531. Prior to and during hot work, the condition of the vapour/gas/air environment in the process equipment where the hot work is being carried out and in the hazardous area shall be monitored.

If the concentration of flammable substances rises or the concentration of phlegmatizer in the hazardous area or the processing equipment falls below the maximum permissible explosion-proof concentration of vapours (gases), the hot work must be stopped immediately.

1532. No opening of hatches and covers of technological equipment, unloading, reloading and draining of products, loading them through open hatches, or operations that may cause fires and explosions due to gas and dust pollution of the places where hot work is carried out, shall be permitted.

1533. During breaks and at the end of the work shift, the welding equipment shall be disconnected from the mains, the hoses shall be disconnected and cleared of flammable liquids and gases and the soldering lamps shall be completely depressurised.

1534. When work is completed, all equipment and apparatus shall be stowed away in the designated space(s).

1535. When performing hot work, the following shall not be permitted:

1) to start work if the equipment is faulty;

2) to perform hot work on structures and products freshly painted with combustible paints (varnishes);

3) to use clothing and gloves with traces of oil, grease, petrol, paraffin and other flammable liquids;

4) to store clothing, flammable and combustible liquids and other combustible materials in welding booths;

5) to work independently by apprentices as well as workers who do not have a qualification certificate and a fire safety voucher;

6) electrical wiring coming into contact with cylinders containing compressed, liquefied or dissolved gases;

7) to work on appliances and lines filled with flammable and toxic substances, or under pressure or electrical voltage;

8) to perform fire works simultaneously with the waterproofing and vapour barrier on the roof, installation of panels with combustible and non-combustible insulations, gluing of floor coverings and finishing of rooms with combustible paints, glues, mastics and other combustible materials;

9) to work as an electric welder and gas welder (gas cutter) inside closed containers and rooms at the same time.

1536. No fire work may be performed on parts of buildings made of light metal structures with combustible and non-combustible insulation.

1537. Electrical welding work in refrigerators under construction shall be done in chambers and compartments free of combustible materials with cover layers (plaster, concrete or reinforced concrete screeds) and fire belts in place.

1538. Fire work in the renovation and refurbishment of public and residential buildings shall be conducted after measures have been taken against the ignition of combustible structures and the spread of sparks.

1539. In the case of major repairs and reconstruction of workshops without interruption of production and in the case of hot work, the enterprise administration shall develop a plan for strengthening fire safety for this period.

1540. Fire brigades (service personnel, volunteer fire brigades) shall be deployed in the most fire-prone areas, when there is a high volume of hot work, and when working at heights) .

Workers working at height shall be provided with metal boxes to collect electrode shards.

No fire work shall be permitted at heights in strong winds over 6 points.

1541. The site manager or other person responsible for fire safety shall ensure that the site of temporary hot work is inspected within 3-5 hours of its completion.

Electric welding procedures

1542. No wires without insulation or with damaged insulation may be used, nor may non-standard protection devices be used.

1543. Welding wires shall be connected by crimping, welding, soldering or special clamps. The connection of the wires to the electrode holder, the workpiece to be welded and the welding machine shall be made by means of copper cable lugs fastened with bolts with washers.

1544. Wires connected to welding machines, switchboards and other equipment as well as to the welding points shall be reliably insulated and protected against heat, mechanical damage or chemical influences where necessary.

1545. Cables (wires) of electric welding machines must be at a distance of at least 0.5 metres from oxygen lines and at least 1.5 metres from acetylene and other combustible gas lines.

In individual cases, reduction of these distances shall be permitted, provided that the gas pipeline is encased in a protective metal pipe.

1546. Steel or aluminium rails of any profile, welding plates, racks and the structure to be welded may be used as a return conductor between the workpiece to be welded and the welding current source, provided that their cross-section enables the welding current to flow safely under heat conditions.

1547. The individual elements used as a return conductor shall be connected to each other using bolts, clamps or clamps.

1548. When welding work is performed in potentially explosive and flammable rooms and buildings, the return conductor from the item to be welded to the power source must only be an insulated conductor of the same quality as the direct conductor connected to the electrode-array.

1549. No internal railway tracks, earthing or grounding network or metal structures of buildings, utilities and technological equipment may be used as return conductors. In these cases, welding shall be done using two wires.

1550. Welding generators and transformers as well as all accessories and apparatus to be installed outdoors must be of enclosed, dry-insulated construction and installed under sheds of non-combustible material.

1551. The electrode holder for manual welding shall be designed to ensure reliable clamping and quick change of electrodes as well as to prevent the possibility of short-circuiting its body to the part to be welded during temporary interruptions in operation or accidental dropping of the holder onto metal objects. The electrode holder handle shall be made of non-combustible dielectric and heat-insulating material.

1552. Factory-made electrodes suitable for the rated welding current shall be used for welding.

When electrodes are changed, their remains (stubs) shall be placed in a special metal box placed at the welding site.

1553. The electric welding system shall be earthed during operation. In addition to grounding the main electric welding equipment, the welding transformer secondary winding terminal to which the conductor to the work piece (return conductor) shall be directly grounded in the welding systems).

1554. The unit and the starting equipment shall be cleaned daily after finishing work. Maintenance and preventive maintenance of the welding equipment shall be performed as per schedule.

1555. A separate transformer shall be used to supply power to the arc in atomic-hydrogen welding systems. No direct supply to the arc from the mains via any type of current regulator shall be permitted.

1556. Automatic voltage cut-off and hydrogen cut-off in the case of a broken circuit shall be provided in the atomic-hydrogen welding torch.

1557. No burners shall be left unattended when switched on.

1558. When performing electrical welding work in potentially explosive atmospheres:

1) DC power sources or special AC power sources shall be used with pulse generators that increase the voltage between the electrode and the workpiece to be welded when the arc is reignited (discharge type power supply);

2) in class P-II areas, areas that are difficult to access for dusting shall be treated with a two per cent solution of blowing agent at the rate of 1 litre of solution per 1 m2;

3) vertical and overhead welding shall be done with electrodes not exceeding 4 mm in diameter. The welding current must be 20 % lower than for horizontal welding in the bottom position;

4) prior to switching on the electric welding system, the electrode shall be checked to ensure that there is no electrode in the electrode holder.

Gas-welding procedures

1559. Regular welding work shall take place in a designated welding shop with fireproof construction and isolated areas for acetylene generators, oxygen cylinders and welding stations. Rooms for acetylene generators, shall be provided with ventilation and easily discharged structures. Generators must not be installed in a basement.

1560. Only the facility administration in charge of the portable acetylene generators shall issue a permit for the operation of these generators.

1561. Portable acetylene generators shall be installed outdoors. Their operation shall be permitted temporarily in well-ventilated rooms.

No generators may be installed in a basement.

1562. Acetylene generators shall be fenced off and placed no closer than 10 metres from hot work areas and compressor and fan air intake points.

1563. Posters “No Entry by Unauthorised Persons - Fire Hazard”, “No Smoking”, “No Passing with Fire” shall be displayed at the acetylene generator installation sites.

1564. The calcium carbide in the portable generator shall be produced at the end of operation. The lime sludge removed from the generator shall be discharged into a suitable container and poured into a sludge pit or special hopper.

1565. Open sludge pits shall be fenced with railings and closed sludge pits shall be equipped with fireproof slabs, exhaust ventilation and manholes for sludge removal.

1566. Smoking and the use of open flames within a radius of less than 10 metres of the sludge storage areas shall be prohibited and signs prohibiting the use of open flames shall be posted.

1567. Gas supply hoses at the connection nipples of apparatus, burners, torches and reducers shall be securely fastened with clamps or at least two places along the length of the nipple with soft annealed (knitting) wire.

Hoses shall be fitted tightly to the water seal nipples, but not secured.

1568. Calcium carbide shall be kept in dry, ventilated rooms.

Calcium carbide storage shall not be placed in basements or low flooded areas.

Calcium carbide drums in mechanised warehouses shall be stored in three tiers in an upright position, or in the absence of mechanisation, a maximum of three tiers in a horizontal

position and a maximum of two tiers in an upright position. Boards 40-50 millimetres thick shall be placed between the tiers of drums.

The width of the aisles between stacked drums of calcium carbide shall be a minimum of 1.5 metres.

1569. No more than 200 kg of calcium carbide may be stored simultaneously in acetylene plant rooms where there is no intermediate storage of calcium carbide, whereby no more than one drum of this quantity may be open.

1570. Opened calcium carbide drums shall be protected with watertight lids.

1571. No smoking, use of open flames or the use of spark-producing tools shall be permitted in the areas where calcium carbide drums are stored and opened.

1572. Gas cylinders may only be stored and transported with safety caps screwed on their necks. Jolts and shocks must be avoided when transporting the cylinders. Cylinders shall be transported to the welding site on special trolleys, stretchers, sleds.

1573. Gas cylinders shall be protected from sunlight and other sources of heat when stored, transported and operated.

1574. Cylinders installed indoors must be placed at least 1.5 metres away from heaters and cookers, and at least 10 metres away from heat sources with an open flame.

The distance from the burners (horizontally) to the bypass ramps (group) shall be at least 10 metres, and to individual cylinders with oxygen or combustible gases at least 5 metres.

Oxygen and flammable gas cylinders, as well as calcium carbide, paints, oils and grease must not be stored in the same room.

1575. A maximum of five oxygen and five acetylene spare cylinders shall be accommodated in the welding shop.

A maximum of two cylinders may be provided in the workplace: a working cylinder and a spare cylinder.

1576. When handling empty oxygen or combustible gas cylinders, the same safety precautions as for filled cylinders must be observed.

1577. The following shall be prohibited when gas welding or gas cutting work is being carried out:

1) heating frozen acetylene generators, pipes, valves, reducers and other parts of welding machines with an open flame or a red-hot object;

2) allowing oxygen cylinders, gearboxes and other welding equipment to come into contact with different oils, as well as oily clothing and rags;

3) operating from a single water seal with two welders;

4) loading calcium carbide of excessive granulation or pushing it into the machine funnel with iron rods and wire, and working on carbide dust;

5) loading calcium carbide in wet baskets or with water in the gas collector and loading the baskets with more than half of their volume with carbide when operating the water-to-carbide generators;

6) flushing the flammable gas hose with oxygen and the flammable oxygen hose as well as interchanging the hoses during operation;

7) using hoses exceeding 30 metres in length and 40 metres for installation work, which may only be used after a written permit has been issued as required;

8) kinking, crimping or clamping gas hoses;

9) moving the generator if there is acetylene in the gas tank;

10) speeding up the operation of acetylene generators by deliberately increasing the gas pressure therein or by increasing the single load of calcium carbide;

11) applying copper tools to open calcium carbide drums, and copper as a solder for soldering acetylene equipment and in other places where acetylene may come into contact.

Hot work procedures

Metal cutting procedure

1578. The workplace for gasoline and paraffin cutting must be organised in the same way as for electric welding work. Particular attention must be paid to preventing spills and the correct storage of flammable and combustible liquids, the cutting regime and maintenance of the fuel tank.

1579. A fuel reserve at the place where petrol and paraffin cutting work is being performed shall be kept in an amount not exceeding the shift requirement. Fuel shall be kept in serviceable, unbreakable and tightly closed special containers at a distance of at least 10 metres from the place of hot work.

1580. Fuel for petrol and paraffin cutting work must be free of impurities and water. The tank must not be filled with more than 3/4 of its capacity with fuel.

1581. The fuel tank shall be kept in good condition and shall be airtight. The tank shall be fitted with a pressure gauge as well as a safety valve to prevent the pressure in the tank from exceeding 5 atmospheres.

No tanks that have not been tested with water at 10 atmospheres, that are leaking flammable liquids or have a defective pump may be used.

1582. All fittings of the petrol and paraffin cutter must be thoroughly inspected prior to starting petrol cutting work, the tightness of hose connections on the nipples, and the serviceability of the threads in the cap nuts and heads.

1583. The torch vapouriser must not be heated by igniting flammable or combustible liquids poured into the workplace.

1584. The fuel tank shall be at least 5 metres from the oxygen tanks and open flame source and at least 3 metres from the workplace. The tank must be positioned so that flames and sparks do not reach it during operation.

1585. The following may not be permitted during petrol and paraffin cutting work:

1) the presence of air pressure in the fuel tank that exceeds the working pressure of the oxygen in the torch;

2) overheating of the torch vapouriser to cherry colour and hanging the torch vertically with the head upwards during operation;

3) clamping, kinking or crimping the oxygen or fuel hoses to the torch;

4) the use of oxygen hoses to bring petrol or paraffin to the torch.

Soldering work

1586. During soldering work, the workplace shall be kept clear of inflammable materials and combustible structures within 5 metres shall be protected by shields of non-flammable materials or sprinkled with water.

1587. The soldering lamps shall be maintained in perfect working order and at least once a month they shall be inspected for strength and tightness and the results and date of the inspection shall be entered in a special log. In addition, hydraulic tests shall be conducted at least once a year.

1588. Each soldering light shall be accompanied by a data sheet stating the results of the factory hydraulic test and the permissible operating pressure. The soldering lamps shall be equipped with spring loaded safety valves adjusted to the specified pressure.

1589. The soldering lamps shall be refuelled with fuel and ignited in areas designated for this purpose. No spillage of fuel or use of open flames may be allowed when refuelling the lamps.

1590. The fuel to be filled into the soldering lamp must be freed of impurities and water to prevent the flame from escaping from the soldering lamp.

1591. To prevent the soldering lamp from exploding, the following shall be prohibited:

1) using petrol or a petrol-kerosene mixture as fuel for kerosene-fuelled lamps;

2) an increase in pressure in the lamp reservoir when the air is inflated above the permissible operating pressure specified in the data sheet;

3) filling the lamp with fuel more than 3/4 of its reservoir volume;

4) unscrewing the air screw and filler plug when the light is on or has not yet cooled down ;

5) repairs to the lamp and draining or filling it with fuel near an open flame, allowing smoking.

Installation and operation of space heating and drying systems

General provisions

1592. Steam and water heaters as well as factory-made electric heaters may be used to heat mobile (inventory) buildings.

1593. Clothing and footwear shall be dried in specially adapted rooms, buildings or facilities with central water heating or with the use of water heaters.

1594. Dryers shall not be placed in vestibules or other rooms located at building exits.

1595. Only air or water heating systems with firing appliances outside the building at least 18 metres away or behind a fire wall shall be applied in metal buildings with polymer insulation for the duration of the construction work.

A distance of less than 100 metres from the coolant pipes to the building envelope shall be prohibited.

1596. No open flames, hot work or the use of electric heaters or infra-red gas burners in a tent shall be permitted.

Drying procedures for drying rooms with infra-red gas burners.

1597. Mobile and stationary systems with infra-red burners shall be equipped with an auto-lock that cuts off the gas supply when the burner goes out.

1598. Installation and operation of infra-red gas burners must be carried out by personnel who have completed a technical gas training programme and who are qualified to perform gas work.

1599. Mobile appliances with infra-red gas burners installed on the floor shall be secured with a special stable stand. The gas cylinder shall be at least 1.5 metres away from the unit and other heating appliances, and at least 1 metre away from electric meters, switches, sockets and other electrical appliances.

The distance from burners to structures made of flammable materials must be at least 1 metre, low-combustible once – at least 0.7 metre and non-flammable once – at least 0.4 metre .

The length of the hoses for the LPG installations shall be as short as possible to enable convenient handling. The distance from the furthest drying point to the connection point must not exceed 30 metres. If the installation is farther away from the gas grid, a temporary pipeline of steel pipes shall be laid and the burners shall be connected to it with flexible hoses .

The flexible hoses shall be connected to the gearbox and the piping by means of clamps with bolts and nuts to ensure a tight connection. The flexible hoses must be installed at a minimum height of 2 metres and must not be kinked or pinched.

1600. No flammable substances or materials may be stored or handled in areas where infrared gas burners are operated.

1601. The following shall be prohibited during the operation of the infra-red burners:

1) leaving the machine in operation unattended;

2) using a burner with damaged ceramics or visible flame tongues;

3) using the appliance if there is a smell of gas in the room;

4) directing the heat beams of the burners directly towards flammable materials, gas cylinders, gas lines, electrical wiring;

5) using a gas-fired heater at the same time as a solid-fuel heater.

1602. Only windproof burners shall be used when working outdoors (for heating workplaces and drying wet areas).

Installation and operation of heat generators using liquid and gaseous fuels

1603. Air heater units shall be placed at least 5 metres away from the building under construction.

The fuel tank shall be used with a volume of maximum 200 litres, and shall be located at least 10 metres from the heater and at least 15 metres from the building in question. Fuel shall be supplied to the heater by means of a metal pipe.

Fuel line connections and fittings shall be factory made to prevent fuel leaks. A shut-off valve shall be installed on the fuel line near the tank to cut off the fuel supply to the unit in case of fire or accident.

Portable or mobile oil-fired air heaters with an integrated fuel tank may be used in the building under construction, provided that the requirements of the operating instructions are observed.

Footnote. Paragraph 1603 as reworded by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall be put into effect ten calendar days after the date of its first official publication).

1604. When installing and operating gas-fuelled systems:

1) standard burners with factory nameplate shall be installed in the heat generating units;

2) the burners shall operate steadily without flame breakaway or flashover within the required heat load regulation of the unit;

3) ventilation in rooms with heat generating units shall provide three times the air exchange per hour.

1605. The following shall be prohibited in the operation of heat production plants:

1) to operate the unit with leaking fuel lines, loose connections between the nozzle body and the heat producing unit, defective chimneys causing penetration of combustion products into the room, defective electric motors and starting equipment, and lack of thermal protection for the electric motor or other malfunctions;

2) to operate with an unadjusted nozzle (with abnormal fuel combustion);

3) to use rubber or PVC hoses and couplings to connect fuel lines;

4) to install flammable guards around the plant and consumption tanks;

5) to heat the fuel lines with an open flame;

6) to start up the heat production plant without blowing out the air after a brief standstill;

7) to light the working mixture through the sight glass;

8) to adjust the gap between the spark plug electrodes when the heat production unit is running;

9) to allow the heat production unit to operate without a protective grid on the air intake manifolds.

Installation and operation of electric heaters

1606. Electric duct heaters may only be installed and operated from the factory, with a functioning alarm and interlock to prevent the power supply to the heating elements when the

fan is not running, and the automatic control of the outlet air temperature and its regulation provided for by the electrical and thermal protection.

1607. The electric duct heater shall be installed, prepared for operation and started up as shown in the manufacturer's data sheet..

1608. No flammable materials may be used for the soft insert between the duct heater casing and the fan.

1609. The following shall be prohibited during the operation of electric heaters::

1) disabling an alarm or lockout;

2) allowing the air outlet temperature from the electric calander to exceed the temperature specified by the manufacturer;

3) switching on the electric califer when the fan is not running (interlocking must be tested prior to each start-up of the unit);

4) drying clothes or other combustible materials on or near an electric heater;

5) storing combustible substances and materials in the room where the electric heater is in operation.

Maintenance of fire water supply, fire extinguishing equipment and communications

1610. The installation of permanent external water mains and fire hydrants, as well as the construction of fire ponds and other water sources, shall be planned so that they can be used for firefighting by the start of the main construction work.

1611. Where permanent water supplies cannot be completed by the start of the main construction work, temporary firewater pipelines or firewater tanks shall be installed.

1612. The design documents shall specify the capacity of temporary fire tanks (reservoirs) , their number and location on the site under construction.

1613. For single source water supply systems (including surface water supply systems with water intake at the same point) in seismicity 8 and 9 areas, twice the volume of fire extinguishing water specified in the General Requirements for Fire Safety technical regulation shall be envisaged in the tanks.

1614. Artificial ponds located in the construction area shall be insulated and provided with 12x12 metre access ramps for manoeuvring fire-fighting vehicles. The water level in the ponds shall enable firefighting pumps to draw in. Piers for fire-fighting vehicles shall be built to natural water sources (rivers, lakes, ponds) in the vicinity of the construction site. In wintertime, they shall be equipped with “frost-free” ice-holes.

1615. The internal fire plumbing and automatic fire extinguishing systems shall be installed at the same time as the construction of the building. The fire protection plumbing shall be operational by the start of the finishing works. And automatic fire extinguishing and signalling systems shall be activated by the time of commissioning (in cable constructions before laying of cables).

1616. Buildings, temporary structures and outbuildings under construction shall be equipped with primary fire extinguishing equipment as per the standards set out in Annex 7 hereto. Fire extinguishing equipment may not be used for purposes other than its intended use .

1617. Special insulated rooms for the accommodation of fire-fighting equipment and personnel shall be allocated prior to the construction of the main structures and the construction base.

Fire stations shall be constructed in the first phase of construction.

1618. Canteens with an area of 300 m2 or more shall be equipped with an automated smoke alarm system with a signal output to the façade of the building (construction) or to a room with round-the-clock personnel presence.

Each construction site shall be fitted with a means of communication to call the fire brigades. Access to communication facilities on the construction site shall be ensured at any time of the day or night. A sign near each telephone (radio station) announcing the procedure for calling the fire brigade, a list of firefighting crews, and the procedure for using firefighting resources to fight fires shall be displayed. Sound signals (bells, sirens) for alarms shall be installed in visible areas of the construction site and “Fire Alarm” signs shall be posted near them.

Section 13. Maintenance procedures for fire water supplies

Footnote. The Rules have been supplemented by Section 13 as per Decree No. 921 of the Government of RK dated 13.12.2019 (shall be enacted ten calendar days after the date of its first official publication).

1619. Natural and artificial fire water sources (including fire water pipelines, fire ponds, water storage tanks for firefighting purposes), as well as accesses to them for water extraction shall be maintained in good working order at all times.

1620. Fire water mains, fire hydrants and fire hydrants and fire hydrants shall be tested for drainage and operability at least twice a year (in spring and autumn)).

1621. Fire hydrants shall be kept in good working order and shall be insulated and cleared of snow and ice in winter.

1622. Access for fire-fighting equipment to fire water sources by roads and passageways shall be ensured at all times of the year.

1623. If parts of the water supply network are disconnected, hydrants malfunction, or the pressure in the network drops below the required pressure, the water supply dispatcher (for water supply networks in human settlements) or the relevant official of the organisation responsible for fire water supply (for the water supply networks of the organisation or enterprise) shall notify the public fire brigade authorities of this fact.

1624. Fire water supply sources (including fire hydrants, fire ponds), piers for installation of fire engines, places of connection of fire engines to fire dry pipes of buildings and

structures, as well as the direction of movement to their location shall be marked with fire safety signs as required by ST RK GOST R 12.4.026 “Signaling Colours, Safety Signs and Signal Markings. General Specifications and Application Procedure”.

An illuminated or fluorescent sign with the letter index “UFH”, numerical values of the distance in metres from the sign to the hydrant shall be installed at the location of the underground fire hydrant.

A similar sign shall be erected at the fire pond with the letter index “FP”, numerical values of the water reserve in cubic metres and the number of fire-fighting vehicles that can be simultaneously installed at the pond site.

1625. Fire hydrants of the internal fire water supply system shall be installed so that the outlet with the valve is 1.35±0.15 m above the floor of the room, equipped with hoses, barrels and enclosed in fire cabinets, that shall be sealed. Coupled fire hydrants may be installed one above the other, with the second hydrant installed at least 1 metre above the floor.

The enclosure door shall bear the letter code “FH” and the serial number.

The fire hoses shall be kept dry, well rolled and connected to the taps and barrels.

1626. A general fire-fighting water supply scheme and pump wiring diagram shall be displayed in the pumping station premises.

Each gate valve and fire extinguisher pump shall be labelled with their purpose.

The activation of booster pumps shall be specified in the technical instructions.

1627. The electric motors of the fire pumps shall be powered by an uninterrupted power supply to the enterprise.

1628. Electrically operated gate valves shall be installed in bypass lines of outdoor and indoor fire water mains, the opening of the gate valves shall be operated by pushbuttons installed in fire cabinets and interlocked with the start-up of fire water booster pumps, if any.

Electrically operated gate valves installed in water meter bypass lines shall be inspected for serviceability at least twice a year and fire pumps shall be inspected monthly.

1629. Should there be natural or artificial water sources (rivers, lakes, pools, cooling towers) on or near the site (within a radius of 200 m), access roads with hard surfaces (piers) at least 12x12 m in size shall be provided to enable fire-fighting vehicles to mount and draw water at any time of the year.

1630. Man-made reservoirs, accesses to water sources and water intakes shall be maintained in constant readiness by the owners of the structures.

1631. Water towers shall be suitable for water extraction by fire-fighting equipment at any time of year.

No water reserve intended for fire-fighting purposes may be used for domestic or industrial purposes.

1632. The equipment of fire water supply systems (fire hydrants, fire hydrants, dry pipe water and foam fire extinguishing systems and water sprinkler systems) shall be technically

inspected prior to commissioning and at least twice a year (in spring and autumn) and tested for operability (water discharge) by means of water start-up.

The technical inspection shall comprise:

1) inspection of the fire hydrant to detect mechanical damage (scratches, chipping, etc.), fixing the integrity of the paint coating;

2) completeness check;

3) quality control of the connection of the fire hose to the valve and the barrel and the ease of disconnecting them;

4) inspection of the condition of the rubber gaskets that are on the fire hose and the connection heads on the valve, hose and riser of the dry pipe;

5) performing hydrotesting of the tap for water extraction and/or supply of water to the dry pipe;

6) testing of the operation of the pressure booster pump and/or opening of the electric gate valve on the bypass line of the external and internal fire-fighting water mains;

7) rewinding the fire hose;

8) sealing the fire hydrant.

Internal fire-fighting water supply shall be tested at a temperature of at least plus 5°C.

Technical inspection and testing results of the internal fire water supply systems shall be documented in a report and a test report.

The forms of the water supply network inspection report for water discharge, fire hydrant inspection report, internal fire water supply system performance test report, water discharge test report and fire hydrant valve performance test report are provided in Annex 8 hereto.

Annex 1
to the Fire Safety Rules

Guidelines for drawing up an evacuation plan

1. The administration of buildings and structures (except residential buildings) with over 10 people on the floor at any one time shall draw up evacuation plans in case of fire.

Evacuation plans shall contain both graphic and textual parts. The graphic part shall comprise a floor plan (section-by-section) of the building or structure with indication of escape exits (staircases, exterior open staircases, exits directly to the outside), routes for spectators and service personnel, and a symbolic representation of the location of manual fire alarm buttons, telephone sets, fire extinguishing equipment (fire hydrants, fire extinguishers).

The text shall detail the order and sequence of the evacuation of people, the duties of the service personnel and the forces engaged to service the competition or cultural and entertainment event to signal a fire and organise the movement of people to the evacuation exits.

2. The evacuation plan shall consider several (3-5) options for evacuating people from the structure or building depending on the most likely locations of a fire, the possible nature of its

development, the occupancy of the structure by spectators and the availability of additional forces engaged for competitions and cultural and entertainment events.

The textual part of the evacuation plans for each option shall reflect:

organisation of the fire alarm system (who decides whether or not to evacuate, warning zones and methods of notification, number of people to be notified);

the number of staff as well as additional forces engaged for the evacuation (order of assembly, places of assembly, zone and sector heads, assembly signals);

evacuation routes (their length and direction, who is responsible for the routes, evacuation procedures, responsibilities of service personnel and additional forces engaged in the evacuation process);

final points of departure (order of dispersal of evacuees, provision of medical assistance if necessary);

evacuation procedures for the use of emergency exits, the possibility of using emergency escape equipment, as well as various equipment and engineering systems (smoke-extraction systems, automatic fire extinguishers, intercoms, radios) for the evacuation and successful execution of the evacuation).

3. The graphic part of the plan shall contain evacuation routes (green solid line with arrows in the direction of the escape exits). Where there are large numbers of people in a structure, there shall be evacuation zones marked in different colours on the plans, indicating the direction of evacuation from these zones. The evacuation plan shall include alternate escape routes (green dashed line).

4. The evacuation plan (graphical and textual parts) shall be visibly displayed in a prominent place in the premises of the fire station or other room with 24-hour attendant duty, as well as with the management of the facility.

The symbols in the graphic shall be deciphered below the evacuation plan in the national and Russian languages.

5. In addition to the general evacuation plan for the building as a whole, each area (sector, group of rooms) shall be equipped with an extract from the general evacuation plan (various options) with a memo on fire safety measures and rules of conduct in case of fire, which shall be kept by the responsible persons on duty in the areas, sectors.

An extract from the evacuation plan shall show: stairwells, lifts and lift halls, rooms showing doorways, balconies, corridors, exterior staircases.

The premises the extract from the evacuation plan is intended for shall be marked on the floor plan of the sector, zone with the inscription “The room, zone, where you are...”.

Lines showing the direction of evacuation shall be marked from the premises in question to the exit to a place of safety or directly to the outside.

An extract from the evacuation plan shall be displayed in a prominent place in the room under glass (film), the size of the extract from the plan shall not be less than 20 x 30 centimetres.

A transcription of the symbols used shall be shown under the extract from the evacuation plan.

The textual part of the statement shall specify responsibilities of persons and sequence of actions of service personnel as well as of forces engaged in evacuation.

The text part of the extract from the general evacuation plan shall be kept with the person responsible for evacuating the area, sector, room.

The evacuation plan shall be approved by the head of the enterprise, organisation.

All service personnel as well as support forces engaged in the evacuation of spectators shall be acquainted with the contents of the statement (against signature).

Annex 1-1
to the Fire Safety Rules

Footnote. The Rules as supplemented by Annex 1-1 as per Decree No. 921 of the Government of RK dated 13.12.2019 (shall be put into effect ten calendar days after the date of its first official publication).

Fire safety instructions requirements

Fire safety instructions shall be drawn up based on the requirements hereof, assuming the specific fire hazards of buildings, structures, technological processes, technological and production equipment.

The fire safety instructions shall cover the following issues:

1) the maintenance of areas, buildings, structures and premises, including evacuation routes;

2) measures to ensure fire safety of technological processes in the operation of equipment and the production of fire-hazardous works;

3) procedures and regulations for the storage and transport of explosive and flammable substances and materials;

4) procedures for inspecting and closing the premises at the end of work;

5) the location of smoking areas, open flames and fire hazardous work and other fire hazardous work;

6) procedures for the collection, storage and disposal of combustible substances and materials, and the maintenance and storage of protective clothing;

7) the permissible quantity of raw materials, semi-finished and finished products on the premises at any one time;

8) limit readings of measuring instruments (pressure gauges, thermometers), deviations from which may cause a fire or explosion.

Responsibilities and actions of personnel in the event of fire:

1) calling the fire brigade;

2) emergency shutdown of process equipment;

3) turning off ventilation and electrical equipment;

4) the use of fire extinguishing equipment and fire-fighting equipment;

5) evacuation of people, combustibles and material assets;

6) inspection and maintenance of all premises in a fire and explosion-safe condition.

Annex 1-2
to the Fire Safety Rules

Footnote. The Rules as supplemented by Annex 1-2 under Decree No. 921 of the Government of the Republic of Kazakhstan dated 13.12.2019 (shall be enforced ten calendar days after the date of its first official publication).

Document form

Operational acceptance certificate for fire automation systems and installations

City _____ "___"_____20__

Commission appointed _____

(the name of the contracting authority)

by decision dated "___"_____20__No. _____ consisting of:

the chairman - representative of the customer (general contractor) _____

_

_____

(position, first name, surname and patronymic (if any)

Members of the commission - representatives:

of the installation company _____

(position, first name, surname and patronymic (if any)

of the commissioning organisation _____

(position, first name, surname and patronymic (if any)

inspected the work performed and found:

1. The installation and commissioning company submits for acceptance the unit_____ _____, installed at _____

(installation name) (facility name)

as per the design developed (drawn up) _____

(name of the organisation)

2. Installation work completed by_____

(name of the organisation)

from "___"_____20__ to "___"_____20__

3. Pre-commissioning work completed by_____

(name of the commissioning organisation)

from "___"_____20__ to "___"_____20__

4. Any defects or deficiencies identified during the due diligence have been eliminated (if necessary, please specify in the annex hereto).

Opinion of the commission:

The installation, that has passed comprehensive testing, including commissioning works, is accepted for operation from "___"_____20__ with evaluation of the quality of the work performed: _____

_____

(excellent, good, satisfactory)

List of documentation attached to the certificate _____

_____

_____

Commission:

Chairman of the Commission _____

stamp here (signature)

Members of the Commission

_____

(signatures)

Annex 1-3
to the Fire Safety Rules

Footnote. The Rules as supplemented by Annex 1-3 under Decree No. 921 of the Government of the Republic of Kazakhstan of 13.12.2019 (shall be put into effect ten calendar days after the date of its first official publication).

Document form

LIST of installed appliances and equipment of fire automation systems and installations

_____

(facility name)

project-wise _____

Item number and project specification	Name	Type	Factory number	Note

Accepted by_____

(position, first name, surname and patronymic (if any)

_____

of the customer representative (signature)

Handed over by _____

(position, first name, surname and patronymic (if any)

_____

of the representative of the installation organisation (signature)

Annex 1-4
to the Fire Safety Rules

Footnote. The Rules as supplemented by Annex 1-4 under Decree No. 921 of the Government of the Republic of Kazakhstan dated 13.12.2019 (shall be enacted ten calendar days after the date of its first official publication).

Document form

Operational log of fire automation systems and installations

1. Name and departmental affiliation (form of ownership) facility equipped with fire automation systems and installations

_____

(type of system, method of starting)

Address, phone number _____

Date of system installation, name of installation organisation _____

Type of fire automation system _____

Name of the system maintenance organisation (service)

_____

phone number _____

2. Description of the fire automation system

_____

_____

_____

(Name of technical equipment, types, date of manufacture, date of commencement of operation, regular period of certification, etc.)

3. Circuit diagram or wiring diagram of the fire automation system.

4. Hydraulic and electrical test results:

Test date	Test results	Conclusion	Signature

5. Acceptance of shift and technical condition of the system:

Shift acceptance date	Status of systems during the period of shift	Name of protected object and type of system that received the signals	Name, signature of the person who handed in/ received the shift

6. Record of failures and malfunctions of fire automation systems and installations

No. s/o	Date and time of the message	Name of the monitored premises	Type of malfunction	Name and position of the person receiving the message	Date and time the fault was rectified

Notes:

1) Timely troubleshooting shall be analysed daily.

2) The logbook shall summarise the number of failures, malfunctions and false alarms on a monthly basis.

3) The logbook shall be kept by operational (on-duty) staff.

7. Accounting for the maintenance and scheduled preventive repairs of fire-fighting systems and installations.

No. s/o	Date	System type				Position, name and signature of the person

			Object to be monitored	Description of the work undertaken	List of activities carried out	who performed the inspection

8. Testing the knowledge of personnel operating fire automation systems.

No. s/o	Surname, first name, patronymic (if any), position, length of service of the person being tested	Date of testing	Assessment of knowledge	Signature of auditor	Signature of the auditee

9. Accounting for the activation (deactivation) of fire automation systems.

No. s/o	Name of the monitored facility	Kind and type of fire automation system	Date of activation (off)	Reason for activation (off)	Fire damage	Reason for activation

10. Safety briefing for maintenance and operations personnel on fire automation systems.

No. s/o	Name of the person being instructed	Position held by the person being instructed	Date of the briefing	Signature of the person being instructed	Signature of instructor

Annex 1-5
to the Fire Safety Rules

Footnote. The Rules as supplemented by Annex 1-5 as per Decree No. 921 of the Government of the Republic of Kazakhstan dated 13.12.2019 (shall be enacted ten calendar days after the date of its first official publication).

Inspection certificate for fire-fighting systems and installations

City/town _____ "__"_____20__

Facility _____
(name)
The Commission composed of:
Chairman of the Commission_____
(position, first name, surname and patronymic (if any)
Members of the Commission _____
_____
(position, first name, surname and patronymic (if any)
inspected _____
(installataion name)
_____
(specify the installation locations)
_____
(component name)
The work was performed from "__"_____ to "__"_____ 20__
The inspection revealed:

_____

(the state of installations, components)

Recommendations of the Commission:

_____

_____

(Further operation of the existing fire alarm systems and installations is not possible/ possible or new systems and installations need to be installed; separate technical means of fire automation systems and installations need to be repaired; the operation of the fire automation systems and installations must be extended, with an indication of when the next inspection will be required)

Chairman of the Commission: _____

(signature, position, first name, surname and patronymic (if any)

Members of the Commission: _____

_____

(signature, position, first name, surname and patronymic (if any)

Annex 1-6
to the Fire Safety Rules

Footnote. The Rules as supplemented by Annex 1-6 under Decree No. 921 of the Government of the Republic of Kazakhstan dated 13.12.2019 (shall be put into effect ten calendar days after the date of its first official publication).

Standards for the provision of primary fire extinguishing equipment

1. The choise of the type and quantity of fire extinguishers to be used at the facility (building, structure) shall be based on their extinguishing capacity, fire class by type of combustible material, specifics of the protected premises or technological equipment and other parameters (including temperature of the environment in the protected premises, length of the fire extinguishing agent jet from the extinguisher, its operating time and capacity of the fire extinguisher).

2. The type of fire extinguisher (portable or mobile one) shall be decided according to the area of the possible fire. Where there is the possibility of a combination of fires in the protected area, the more versatile fire extinguishers shall be preferred when choosing the type of fire extinguisher.

3. The number of fire extinguishers for the protection of buildings, structures and constructions of different fire and explosion risk categories shall be based on the maximum area protected by a single fire extinguisher and the total area of the premises as shown in Tables 1 and 2 of this Annex.

4. The distance from a possible fire source to the location of the fire extinguisher shall not exceed:

1) 20 m - for public buildings and facilities;

2) 30 m - for premises in categories A, B and B1-B4;

3) 40 m - for premises in category C;

4) 70 m - for premises in category D.

5. At least two hand-held fire extinguishers shall be placed on each floor in public buildings and structures.

6. Premises of fire and explosion risk category D with an area of less than 100 m2 may not be equipped with hand-held fire extinguishers.

7. Where there are several small rooms of the same category of fire and explosion risk, the number of fire extinguishers required shall be established as shown in Tables 1 and 2 of this Annex, with reference to the aggregate area of those rooms.

8. Fire extinguishers removed from the facility for recharging shall be replaced by the appropriate number of charged fire extinguishers.

9. For the protection of rooms with expensive electronic equipment and for the storage of items of historical value (including telephone exchanges, museums, archives), halon and carbon dioxide type fire extinguishers may be used to prevent the risk of fire extinguishing agent damage to the above items.

10. Premises equipped with automatic fixed fire extinguishers shall be fitted with hand-held fire extinguishers at the rate of 50 % of the standard supply.

11. All fire extinguishers placed in the facility shall be accompanied by passports in the prescribed form.

12. Fire extinguishers shall be placed in visible places and at evacuation exits at a height of maximum 1.5 m from the floor without creating obstacles to the safe evacuation of people from the building in the event of fire.

Fire extinguishers with a total weight of less than 15 kg shall be installed so that their top is no more than 1.5 m above the floor.

Portable fire extinguishers with a gross weight of 15 kg or more shall be installed so that the top of the fire extinguisher is no more than 1.0 m high. They may be placed on the floor and must be secured against accidental impact.

13. Fire blankets, coarse wool cloth or felt (felt, blanket of non-combustible material) intended for extinguishing fires shall be stored in metal cases with covers and shall be dried and dusted at least once every three months.

14. A fire panel shall be fitted to place primary fire extinguishing equipment, non-mechanised tools and fire-fighting equipment in production and storage premises that are not equipped with internal fire water supply and automatic fire extinguishing installations, as well as in the territory of enterprises (organisations) that have no external fire water supply, or where buildings, structures and external technological installations of these enterprises are more than 100 m away from external sources of fire water supply.

The required number and type of fire panels shall be based on the explosion and fire hazard category of the premises, buildings, structures and external technological installations,

the maximum area to be protected by one fire panel and the fire class as shown in Table 3 of this Annex.

15. The fire panels shall be equipped with primary fire extinguishing equipment, non-mechanised fire-fighting tools and firefighting equipment as per table 4 of this Annex.

16. Water storage barrels to be installed next to the firebox shall have a capacity of at least 0.2 m3 and be fitted with buckets. Boxes shall be sized 0.5m3, 1.0m3 or 3.0m3 and fitted with a shovel. Sandboxes shall be designed for easy extraction of sand, avoiding the ingress of sediments.

17. Sand boxes shall be installed with shields in rooms or outdoor areas where flammable or combustible liquids may be spilled.

Table 1

Standards for fitting premises with portable fire extinguishers

Name of functional purpose of the premises and category of production or storage area (building, structure) by fire and explosion risk	Maximum room area protected by fire extinguishers of appropriate type, m2	Fire class	Number of fire extinguishers required, depending on type and volume of fire extinguisher enclosure						
			Foam and water fire extinguishers with a capacity of 10 litres	Powder fire extinguishers with capacity, litre (extinguishing agent mass, kg)			Air-emulsion fire extinguishers with a capacity of 3 litres	Carbon dioxide fire extinguishers with capacity, litre (extinguishing agent mass, kg)	
				2(2)	5(4)	10(9)		2(2)	3(5), 5(8)
A, B, C1-C4 (flammable gases and liquids)	200	A	2 ++	-	2 +	1 ++	1++	-	-
		B	4 +	-	2 +	1 ++	1+	-	-
		C	-	-	2 +	1 ++	-	-	-
		D	-	-	2 +	1 ++	1+	-	-
		(E)	-	-	2 +	1 ++	-	-	2 ++
C1-C4 (solid combustibles and materials)	400	A	2 ++	4 +	2 ++	1 +	1++	-	2 +
		D	-	-	2 +	1 ++	1+	-	-
		(E)	-	-	2 ++	1 +	-	4 +	2 ++
		C	-	4 +	2 ++	1 +	-	-	-
D and E	1,800	A	2 ++	4 +	2 ++	1 +	1++	-	-
		D	-	-	2 +	1 ++	1+	-	-
		(E)	-	2 +	2 ++	1 +	-	4 +	2 ++
Public buildings	800	A	4 ++	8 +	4 ++	2 +	2++	-	4 +
		(E)	-	-	4 ++	2 +	-	4 +	2 ++

Notes:

1. The "++" sign indicates fire extinguishers that are recommended for the protection facilities, the "+" sign indicates fire extinguishers that are permitted in the absence of the recommended ones and with appropriate justification, the "-" sign indicates fire extinguishers that are not permitted for the equipment of these protection facilities.

2. For extinguishing fires of different classes, powder fire extinguishers shall be provided with appropriate charges: for class A - ABC (E) powder; for classes B, C and (E) - BC (E) or ABC (E) and class D - D.

3. For extinguishing class D fires, air-emulsion fire extinguishers shall be provided with appropriate extinguishing agent charges and appropriate markings.

Table 2

Standards for equipping premises with portable fire extinguishers

Explosion and fire hazard category of the production or storage area (building, structure)	Maximum room area protected by fire extinguishers of appropriate type, m2	Fire class	Number of fire extinguishers required, depending on type and volume of fire extinguisher enclosure				
			Air extinguishers with a capacity of 100 litres	Air-emulsion fire extinguishers with a capacity of 50 litres	Powder fire extinguishers with a capacity of 100 litres	Carbon dioxide fire extinguishers with a capacity of, litres	
						25	80
A, B, C1- C4 (flammable gases and liquids)	500	A	1 ++	1 ++	1 ++	-	3 +
		B	2 +	1 ++	1 ++	-	3 +
		C	-	-	1 ++	-	3 +
		D	-	-	1 ++	-	-
		(E)	-	-	1 +	2 +	1 ++
C1-C4 (solid combustibles and materials) and materials D	800	A	1 ++	1 ++	1 ++	4 +	2 +
		B	2 +	1 ++	1 ++	-	3 +
		C	-	-	1 ++	-	3 +
		D	-	-	1 ++	-	-
		(E)	-	-	1 +	1 ++	1 +

Notes:

1. The "++" sign indicates fire extinguishers that are recommended for the protection facilities, the "+" sign indicates fire extinguishers that are permitted in the absence of the recommended ones and with appropriate justification, the "-" sign indicates fire extinguishers that are not permitted for the equipment of these protection facilities.

2. For extinguishing fires of different fire classes, powder fire extinguishers shall be provided with appropriate charges: for Class A - ABC (E) powder; for Class B, C and (E) - BC (E) or ABC (E) and Class D - D.

Table 3

Standards for equipping buildings, structures and areas with fire panels

Name of functional purpose of the premises and category of the premises or exterior technological installations by fire and explosion hazard	Maximum protected area per fire panel, m2	Fire class	Fire panel type
A, B, and C1- C4		A	FP-A

(flammable gases and liquids)	200	B (E)	FP-B FP-E
C1-C4 (solid combustibles and materials)	400	A E	FP-A FP-E
D and E	1,800	A B E	FP-A FP-B FP-E
Premises and open areas of enterprises (organisations) for the primary processing of crops	1,000	-	FP-AG
Premises for various purposes when welding or other flammable work is carried out	-	A	PFP
Note: the following symbols are used in table 3: FP-A — fire extinguisher panel for class A fires; FP-B — fire extinguisher panel for class B fires; FP-E — fire extinguisher panel for class E fires; FP-AG - fire extinguisher panel for agricultural enterprises (organisations); PFP - portable fire extinguisher panel.			

18. For premises and external technological installations of the AN, BN and VN categories on the fire and explosion hazard stock of sand in boxes shall be not less than 0.5 m3 for every 500 m2 of the protected area, and for premises and external technological installations of the GN and DN categories not less than 0.5 m3 for every 1 thousand m2 of the protected area.

19. Fire blankets, coarse wool fabrics or felt shall be used to extinguish fires of substances and materials which cannot burn without air access.

Fire blankets, coarse wool cloth or felt shall be sized not less than 1x1 m and shall be intended for extinguishing fires of substances and materials with an area not exceeding 50% of the area of the cloth to be used. The size of fabrics may be increased to 2x1.5 m or 2x2 m in areas where flammable and combustible liquids are used or stored.

Table 4

Standards for fitting fire extinguishing shields with non-mechanised fire-fighting tools and fire-fighting equipment

Name of primary fire extinguishing equipment, non-mechanised tools and inventory	Packing standards depending on the type of fire panel and fire class				
	FP-A class A	FP-B class B	FP-E class E	FP-AG	PFP
Fire extinguishers : Air-foam fire extinguishers (AFF), 10 litres	2	2	-	2	2

powder fire extinguishers (PF) with a capacity, l (mass of extinguishing agent, kg):					
10 (9)	1	1	1	1	1
5 (4)	2	2	2	2	2
carbon dioxide fire extinguishers (CDF) with capacity, litre (mass of extinguishing agent, kg) 5 (3)	-	-	2	-	-
Digging bar	1	1	-	1	1
Pike pole	1	-	-	1	-
Bucket	2	1	-	2	1
Fire blanket, coarse wool cloth or felt (felt blanket, non-combustible blanket)	-	1	1	1	1
Round-pointed shovel	1	1		1	1
Square-point shovel	1	1	1	1	-
Manurer fork	-	-	-	1	-
Water storage tank volume:					
0.2 m3	-	-	-	1	-
0.02 m3	1	-	-	-	1
Sandbox	-	1	1	-	
Note: for extinguishing fires of different classes, powder fire extinguishers shall be provided with appropriate charges: for class A - powder ABC (E), for class B (E) - BC (E) or ABC (E).					

Table 5

Standards for equipping service facilities with primary fire extinguishing equipment

Name of facilities and installations	Surface area (m2)	Name and quantity of primary fire-fighting equipment required		
		Powder fire extinguishers (pcs.)	Carbon dioxide fire extinguishers (pcs.)	Fire extinguisher panel type FP-B (set)
Maintenance station	for every 100	2 - "PF-5" or 1 - "PF-10"	1 - "CDF-2"	-
Vehicle parking areas and garages: open parking areas	for every 100	2 - "PF-5" or 1 - "PF-10"	-	1

garages	per 1 garage	1 - "PF-2"	-	-
an administrative or security building;	Up to 100	2 - "PF-5" or 1 - "PF-10"	-	-
garage area	For every 100	2 - "PF-5" or 1 - "PF-10"	1 - "CDF-2"	1
Gas filling stations with a capacity of 500 or more refuellings per day (135 or more refuellings per peak hour)	-	4 - "PF-5" 2 - "PF-10" 1 - "PF-100"	2 - "CDF-2"	
Gas filling stations with less than 500 refuellings per day (less than 135 refuellings per "peak hour")	-	2 - "PF-5" 1 - "PF-10" 1 - "PF-100"	2 - "CDF-2"	
Operator's room, shop, catering point-(at the gas filling station)	For every 100	1 - PF-5	1 - "CDF-2"	
Free-standing pavilions, kiosks, receptions, repair shops, currency exchange offices, containers from which consumer goods are sold, including those located in the areas of wholesale markets and bazaars.	up to and including 100	1 – “PF-5”	-	-
	For every 100	1 – “PF-5”	-	-
Built-in-attached to public and residential buildings and facilities: trade, consumer services, catering, sports and recreation facilities, libraries, pharmacies, medical offices, cash and settlement facilities, art workshops, dairy kitchens, museums and exhibitions.	до 100	2 – “PF-5” or 1 – “PF -10”	-	-
	For every 100	2 – “PF-5” or 1 – “PF -10”	-	-
offices, halls, discotheques, gaming establishments, currency exchange	up to and including 100	2 – “PF-5” or 1 – “PF -10”	-	-

offices, post offices, photo shops, funeral parlours (rites), offices, repair shops, mini production facilities, shooting galleries, billiard rooms, copy and photocopy shops, travel agencies, transport agencies.	For every 100	2 – “PF-5” or 1 – “PF -10”	-	-

Notes:

1. For facilities not included in the list in Table 5, the number of primary fire extinguishing equipment shall be established based on the requirements of Annex 1-6 hereto.

2. The number of fire extinguishers for motor vehicles shall be specified by Technical Regulation of the Customs Union "On the Safety of Wheeled Vehicles" (TR CU 018/2011).

3. For rail, water, sea and air transport, the number of primary fire extinguishing equipment shall be specified as per the requirements of duly approved standards.

4. Powder fire extinguishers may be replaced by air-emulsion fire extinguishers.

Annex 2
to the Fire Safety Rules

Distance in metres, with degree of fire resistance of kiosks and pavilions	I,II,III	IIIa. III6, IV, IVa, V
I, II, III	6	8
IIIa. III6, IV, IVa, V	8	10

Annex 3
to the Fire Safety Rules

Protective measures to prevent fires and explosions in the surgery

1. The drugs shall be drained after operation from the evaporator into a hermetically sealed receptacle to prevent self-ignition. The ether shall be drained slowly and must not be splashed. The ether remaining after anaesthesia must not be discharged into the sink.

Ether must not be poured from the evaporator into the receiving vessel in a free falling stream. Funnels of electrically conductive material shall be applied for this purpose, the funnels shall be earthed and the end of the funnel shall be reached to the bottom of the vessel. Otherwise the end of the grounded conductor shall be passed through the funnel to the bottom of the vessel so that the ether flows into the vessel through this conductor.

2. Once the anaesthetic has been drained, the evaporator, hoses and all removable parts of the anaesthetic apparatus shall be rinsed with warm water.

3. Inhalation anaesthesia machines shall be cleaned (washed) and decontaminated in compliance with departmental regulations.

4. No transfer of gases from one cylinder to another or the introduction of additional gases or drugs into a cylinder containing compressed gases shall be permitted in surgery. This shall be done in specially equipped rooms by trained personnel.

5. No open flames (matches, gas burners, lit matches), smoking or the use of electric heaters shall be permitted in operation and anaesthetic rooms. A heating pad shall be used to warm up the cylinder valve.

6. The temperature of exposed surfaces of equipment used in anaesthesia and operating theatres does not exceed 120°C.

7. Overheating of the bulb of endoscopic instruments shall be unacceptable.

8. No faulty or sparking electrical equipment may be used during anaesthesia.

9. All electromedical equipment used in hazardous areas must be explosion-proof.

10. No thermocouplers, diathermy machines, electrosurgical machines such as EN-57 and others, non-explosion-proof X-ray machines, defibrillators shall be used during anaesthesia with flammable anaesthetics.

Note. The use of the above apparatus shall be permitted, provided that non-flammable mixtures such as fluorotane, nitrous oxide, chloroform etc. are used, but the use of flammable disinfectants shall be prohibited.

11. Floors in operating rooms that are made of antistatic materials must be cleaned regularly to prevent a non-conductive film from forming (due to dirt deposits), which can cause the floor to lose its electrically conductive properties. No wax or varnish may be applied to the floor surface.

12. Parts of the anaesthetic apparatus must not be covered with adhesive tape (dielectric), non-antistatic rubber hoses must not be used for removing narcotic mixtures into the atmosphere, parts made of conductive material must not be replaced with parts made of dielectric material which have become unusable.

Note. All parts of anaesthetic machines shall be made of electrically conductive materials: bags, hoses, masks, breathing tubes and other parts of the breathing circuit, as well as gaskets, wheel covers shall be made of electrically conductive rubber, adapters shall be made of non-ferrous metal or electrically conductive plastic.

13. All parts of the anaesthetic machine shall be lubricated with a special grease. Endotracheal tubes and gauze swabs shall only be lubricated with pure glycerine.

14. Equipment belt drives shall not be placed within 0.25 metres of the floor in hazardous areas (high concentration of anaesthetic agent). Where belt drives are installed above the hazardous area, the belts shall be made of antistatic material with a resistivity of not more than 105 Ohm/m.

Lubricating belts with rosin, wax and other substances that increase surface resistance shall be prohibited.

15. Textile fabrics used in hazardous areas shall be impregnated with appropriate anti-static agents. Such fabrics shall be re-impregnated with antistatic agents after washing.

16. Any metallic and electrically conductive non-metallic parts of the equipment must be earthed to dissipate static electricity.

Non-metallic parts of the equipment shall be deemed electrostatically earthed when the resistance of any point on their external and internal surface to the earthing bar does not exceed 107Ohm. The rubber parts of the anaesthetic apparatus shall be dampened with water before the operation.

17. The following rules must be observed to prevent electrification of operating personnel :

1) operating room attendants' clothing shall be made of cotton fabric, closed and tight-fitting, not overly dry or overly starchy. It may be advisable to expose clothing and footwear to up to 80% humidity before use.

The patient shall wear cotton underwear. Clothing made of wool, silk as well as nylon, kapron and other synthetic materials, which are highly electrifying when moved, must not be worn in the operating room or other explosive areas and will lead to rapid accumulation of charges on the body;

2) The footwear of operating personnel shall be made of leather soles or conductive rubber soles, and special surgical overshoes made of cotton fabric shall be worn over these shoes. Shoes made of plastic, rubber or other dielectric soles must not be worn in the operating room;

3) the hair of operating room personnel shall be covered with a cap or headscarf made of cotton cloth.

18. Operating room personnel may not wear bracelets, rings, necklaces or other metal objects.

19. The hands of anaesthetic staff and the face of the patient shall be free of oil, ointment and lipstick.

20. The relative humidity in the operating room shall be monitored before and during the operation using a hygrometer or psychrometer. The air temperature shall be monitored. No flammable narcotic mixtures or anaesthetics may be used for anaesthesia if the relative humidity in the operating room is below 55%.

21. The safeguard against ignition and explosion shall involve the use of non-flammable anaesthetics (fluoroethane, chloroform, nitrous oxide, centran). Preventing explosions when working with flammable anaesthetics shall consist of eliminating the causes and sources of ignition.

22. Air samples shall be taken during surgery to monitor the ventilation system for the presence of drug vapours. The samples shall be taken from the area within the breathing zone of the surgical team members. The anaesthetic vapour content shall not exceed the prescribed maximum permissible levels.

23. The air in the operating room shall be tested for suspended solids and bacterial flora at least once a week to check the efficiency of the air purification filters. If bacterial flora

appears in the air, no further operations shall be performed until the causes of the flora have been eliminated.

Annex 4
to the Fire Safety Rules

Primary firefighting equipment requirements for main and auxiliary petroleum product supply enterprises

Footnote. Amended by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall come into effect ten calendar days after the date of its first official publication).

Name of buildings, premises and production areas	Protected area	Carbon dioxide fire extinguishers		FFE-10 foam fire extinguishers	Powder fire extinguishers		Sandbox	2 x 1.5 m fire blanket
		CDF-2	CDF-5 or CDF-8		PF-5 or PF-10	PF-100		
1	2	3	4	5	6	7	8	9
Tanker loading area for petroleum products	-	-	-	4	-	-	1	1
Rail loading rack single sided, double sided	For every 50 metres of length	-	-	2 4	1 2	-	1 2	1 2
Transmission pumping stations for petroleum products	50 m2	-	2	2	-	-	1	1
Instrumentation and control rooms	50 m2	-	2	-	-	-	-	-
Petroleum product storage in containers	200 m2	-	-	1	2	-	-	-
Petroleum product outlet locations for petroleum	-	-	-	1	-	-		1

products in small containers							1	
River and sea piers	For every 50 metres	-	2	2	2	-	1	1
Filling stations for petroleum products	50 m2	-	-	2	-	-	1	1
Manifold buildings	50 m2	2	-	2	-	-	1	1
Pumping station motor room	For each electric motor	1	1	-	-	-	-	-
Floating pumping stations		-	2	4	-	1	1	1
Storage areas for containerised petroleum products	100m2	-	-	3	2	-	1	1
laboratories	50 m2	1	-	2	-	-	-	-
Gas and electric welding room	50 m2	-	-	1	1	-	1	1
Autogas filling station: Station building Pumping and compressor room Vehicle cylinder filling stations	For the room	- - -	1 1 -	- 1 1	2 - 1	1 1 -	- - -	- - -
Regeneration units	100 m2	1	-	1	1	-	1	-
Service and amenity areas	200 m2	-	-	1	-	-	-	-
Computer centres, computer								

stations (bureaus), archives, libraries, design and engineering offices	100 m2	-	1					1
Copying and photocopying machine room	100 m2	-	1	1	-	-	-	-
Material storage facilities	50 m2	-	-	2	1	-	-	-
Boiler houses	100 m2	1	-	2	1	-	-	-
Water pumping station	For each electric motor	-	1	1	-	-	-	-
Parking garages	100 m2	-	1	2	1	-	1	-
Power plants and substations	100 m2	2	2	-	1	-	1	-
Sewage pump house of oily waste	50 m2	1	1	1	-	-	1	-
Biological treatment station	50 m2	-	-	1	1	-	1	-
Ozone treatment facility	25 m2	-	-	1	1	-	-	-
Other production and premises of Category A and B Categories C1-C4, D Category E	200 300 400	- - -	- - -	2 2 1	2 1 -	- 1 -	1 - -	1 - -

Note:

1. Panels with a set of: powder fire extinguishers - 2, boxes of sand - 1, thick cloth (asbestos, felt) - 1, fire crowbars - 2, axes - 2 shall be installed on the territory of enterprises for every 5000 m2.

2. Premises fitted with automatic fixed fire extinguishing installations shall be equipped with primary fire extinguishing equipment at a rate of 50 % of the quantity stated in this annex.

3. Where expensive apparatus and equipment are concentrated, the number of fire extinguishing equipment may be increased.

4. Primary fire-fighting equipment for the premises of installations not listed in this annex shall be assumed in the same way as for other rooms (installations), depending on their fire hazard).

5. The number of fire extinguishers in any category A, B, C1-C4 premises shall be as specified in this annex, but shall be not less than 2, in administrative, service and amenity buildings not less than 2 per floor.

Annex 5
to the Fire Safety Rules

Permit to perform hot work

"___" _____ 20 ___

Facility _____

This is to certify that _____

(Full name)

is authorised to perform _____

please specify which firing operations and location) after the following measures have been taken to ensure fire safety of the work: _____

The permit is valid

from "__" AM/PM "__" _____ 20 ___

to "__" AM/PM "__" _____ 20 ___

Chief Engineer _____

(signature)

Permit extended

from "__" AM/PM "__" _____ 20 ___

to "__" AM/PM "__" _____ 20 ___

Chief Engineer _____

(signature)

Work execution _____

(please specify type of works)

Work is carried out subject to the following additional fire safety requirements.

_____

from "___" AM/PM "___" _____ 20 ___

Permit extended:

to "___" AM/PM "___" _____ 20 ___

Instructions on fire safety measures and the implementation of the measures proposed in the permit have been received by:

_____

(signature of the person performing the work)

Annex 6
to the Fire Safety Rules

Height of the welding point above the floor or adjacent area, in metres	Minimum radius of cleaning area, in metres
0	5
2	8
3	9
4	10
6	11
8	12
10	13
above 10	14

Annex 7
to the Fire Safety Rules

Standards for primary fire extinguishing equipment for buildings, structures and outbuildings under construction or reconstruction

Footnote. Amended by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall be enacted ten calendar days after the date of its first official publication).

Buildings, premises, warehouses and installations	Units of measure	Number of primary fire extinguishing means			
		FFE-5 fire extinguishers	Boxes with a volume of 0.5 m2 with sand and a shovel	Water drums with capacity of 250 l and 2 buckets	Fire protection cloths 2x2m
1	2	3	4	5	6
Buildings under construction and renovation	For 200 m2 floor area	1*	1	1	-
Construction scaffolding	For every 20 m of scaffolding length (per floor)	1*	-	-	-
	For every 100 m of scaffolding length (per floor)	-	-	1**	-
Office premises	For 200 m2 floor area	1*	-	-	-
Carpentry and woodworking workshops, workrooms	For 100 m2	1 ***	1	1	-

Enclosed storage of timber and combustibles (sawdust, foam)	For 100 m2	1***	-	1	-
Storage rooms with combustible materials	For 100 m2	1**	1	1	-
Open timber yards	For 300 m2 storage room area	1 ****	-	-	-
Coverings with combustible insulation or combustible roofs	For 200 m2 storage room area	1	1	1	-
Open storage for round timber	For 500 m2 storage room area	1 ****	-	-	-
Closed storage of non-combustible materials	For 400 m2 storage room area	1***	-	1	-
Tar stores for flammable and combustible liquids	For 50 m2 floor area	1****	1***	-	-
Calcium carbide storage	For 100 m2 floor area	-	1	-	-
Storage of cylinders with compressed, liquefied and dissolved gases	For 200 m2 floor area	-	1	-	-
Working platform for concreting the shaft of high-rise reinforced concrete pipes	For 200 m2 floor area	1	-	-	-
Protective slab inside the structure under construction	For 200 m2 floor area	3	1	1	-
Cradle unit for cooling tower construction	For 200 m2 floor area	8	-	-	-
Storage and preparation room for working compounds of corrosion protection and waterproofing materials	For 200 m2 floor area	3	1	-	3

Installation locations for heat generators, heat exchangers	Aggregate	2	1	-	-
Open parking areas	100 m2	1	1	-	1
Gas and electric welding workshops	200 m2	1	1	-	-
Courtyard	200 m2	1	-	1	-

But at least two fire extinguishers per floor.

** At least two barrels per floor.

*** But at least two fire extinguishers per workshop or each individual store.

**** But at least two fire extinguishers and one sand box. The sand box must contain a 1.5x1.5 m fire blanket.

Note:

1. The number of primary fire-fighting equipment required in warehouses and installations not included in this table shall be based on the provision approved by the relevant ministries.

2. In addition to the fire-fighting equipment provided herein, fire stations (cabinets, panels) with the following set of fire-fighting equipment (tools) shall be installed on the construction site of warehouses, temporary buildings, axes - 2; crowbars and shovels - 2; iron plasters - 2; buckets painted in red - 2; fire extinguishers - 2.

Footnote. Paragraph 2 as reworded by Decree No. 919 of the Government of the Republic of Kazakhstan dated 29.12.2017 (shall be put into effect ten calendar days after the date of its first official publication).

Annex 8
to the Fire Safety Rules

Footnote. The Rules as supplemented by Annex 8 as per Decree No. 921 of the Government of the Republic of Kazakhstan dated 13.12.2019 (shall be enacted ten calendar days after the date of its first official publication).

Document form

Water supply network survey report for water discharge

_____ "__"_____20__

The Commission composed of:

Chairman _____

Members of the Commission _____

__

_____

inspected the water supply network with fire hydrants installed therein.

Inspection results:

Type of water supply network: _____; diameter: _____ millimetre (hereinafter referred to as mm).

Mains pressure: atmosphere (hereinafter referred to as atm.)_____;

Size of fire hydrants installed _____;

Method of water yield inspection _____;

Actual water yield: _____ litres per second (hereinafter referred to as l/s __

Required water yield: _____ l/s.

Opinion of the Commission: _____

Members of the Commission: _____

(signature)

_____

(signature)

Document form

Fire hydrant inspection report

_____ "__"_____20__

Organisation name, that performed the inspection:

_____

The Commission composed of:

Chairman _____

Members of the Commission _____

Fire hydrant characteristics and markings:

the name, address and trademark of the manufacturer _____

manufacturer's designation _____

factory number _____

fire hydrant height, _____ mm;

nominal bore of the inside diameter of the enclosure, _____;

year of manufacture _____

Conditions of inspection _____

Data on measuring instruments and test equipment: _____

_____

Inspection results:

serviceability of the manhole cover and manhole lid, covers and nipple threads,

the upper square of the boom and fire hydrant body

_____

the functionality of the drainage system _____

presence of water in the fire hydrant body and well _____

tightness of the valve (gate valve) as well as connections and seals at operating pressure _ _____

operability of the fire hydrant when a fire hydrant is installed on it

_____

the opening or closing force of the fire hydrant _____

water flow (water output) in the pressure range of the water supply network from 0.4 to 0.6 MPa. _____

Method of water yield survey _____

Actual water yield: _____ l/s.

Required water yield: _____ l/s.

Opinion of the Commission: _____

Members of the Commission: _____

(signature)

Document form

Test report on the operability of the internal fire water supply systems

_____ "___" _____ 20__

Name of the operating organisation

_____

Name of the service organisation _____

_____

Date and time of the tests _____

The Commission composed of:

Chairman _____

(organisation name, position, first name, surname and patronymic (if any)

Members of the Commission _____ _

_____

_____

(organisation name, position, first name, surname and patronymic (if any)

performed a water yield test of the internal fire-fighting water supply system:

_____

(name of building, fire compartment)

Riser and fire hydrant numbers

_____

Fire hydrant valve type

_____

Hand-held fire barrel type

_____

Fire hose length and diameter ____ metre (-s) (hereinafter referred to as "m"), _____mm
Fire pump type

_____

Fire pump head with closed fire hydrants

_____MPa

As required by the laws and regulations in force in the Republic of Kazakhstan:

_____

the consumption of a "dictating" fire hydrant _____ l/s

(allowable) pressure at the "dictating" fire hydrant _____ MPa (allowable)

the number of fire hydrants to be tested simultaneously

_____ piece(s) (hereinafter referred to as "pcs").

Test results

Water yield of the internal fire-fighting water supply during the period of the day of highest water consumption for household needs from ____ AM/PM to ____ AM/PM. Represents at least l/s that _____ meets (does not meet) the requirements of (number and name of the project) the regulations in force in the Republic of Kazakhstan.

The shut-off valves may be moved manually (without any additional technical means) from one end position to the other; no leakage of valve seals or stem seals after at least three cycles of opening and closing, diameter of diaphragms according to design data diaphragm diameter corresponds to design data.

Test report

Functionality of fire hydrant valves _____

(meets, does not meet)

the requirements of national, interstate standards, normative legal acts in force in the territory of the Republic of Kazakhstan.

Chairman of the Commission _____

(signature, surname, first name, patronymic (if any)

Members of the Commission _____

__

(signature, surname, first name, patronymic (if any)

Document form

Internal fire water supply test report for water yield

_____ "___" _____ 20__

Name of the operating organization

_____

_____

Facility name _____

_____

(building, fire compartment)

Name of the service organization

_____

_____

Date and time of the tests _____

Number of riser pipes and fire hydrants to be tested _____;

Fire hydrant valve type _____;

Hand-held fire barrel type _____;

Fire hose length and diameter _____ m, _____ mm;

Fire pump type _____;

Fire pump head with closed fire hydrants _____ MPa

As required by the laws and regulations in force in the Republic of Kazakhstan:

the consumption of a "dictating" fire hydrant _____ l/s;
(allowable)

pressure at the "dictating" fire hydrant _____MPa;
(allowable)

the number of fire hydrants tested simultaneously_____ pcs.

Results of internal fire water supply tests for water yield by "dictating" fire hydrant

Test number	Number of riser pipes - fire hydrants as per hydraulic diagram (diameter)	Outlet diameter, mm	Length of hose line, m	Pressure, MPa		Required consumption, l/s	Required height of the compact part of the jet, m	Test results
				measured	required			

Conclusion on the results of the tests

Minimum drainage of the internal fire water supply (the 'dictating' tap - furthest from the pump and the uppermost fire hydrants of each riser pipe) when operating _____

_____

(of a single tap or when more than one tap is working together)

in the quantity of _____ pcs. _____

(indicate the numbers of taps and trunks)

is at least:

pressure _____ MPa; consumption_____ l/s; height of the compact part of the jet _____ m;

that _____ the requirements

(meets, does not meet)

of national, interstate standards, regulations in force in the territory of the Republic of Kazakhstan.

The tests have been performed by_____

(organisation name, position,

_____

surname, first name, patronymic (if any)

Document form

Fire hydrant valve test report

Name of the operating organisation _____

Facility name _____

(building, fire compartment)

Name of the service organisation _____

Date and time of the tests

_____

Fire hydrant valves type

_____

Fire pump type

_____

The pressure at the "dictating" closed fire hydrant is _____ MPa.

Fire hydrant valve test results

Standpipe number - tap number	Tap diaphragm number	Diaphragm diameter, mm		Number of "Open - Close" cycles of the valve	Tightness (presence of leaks)	Test results
		allowable	measured			

Conclusion on the results of the tests

Test results of fire damper operability tests (valve shut-off device can be moved manually from one end position to another without additional technical means, no leakage through the valve shut-off device or stem seal after several cycles of opening and closing the valve and compliance of the diaphragm diameter with the design data)

_____

(meets, does not meet)

the requirements of the national, inter-state standards and regulations in force in the territory of the Republic of Kazakhstan.

The tests have been performed by _____

_

(organisation name, position,

_____

surname, first name, patronymic (if any)