On approval of the Sanitary Rules "Sanitary-epidemiological requirements for the collection, use, transportation, storage and burial of production and consumer wastes"

Unofficial translation

Order of the Acting Minister of Healthcare of the Republic of Kazakhstan dated December 25 , 2020 no. ҚР ДСМ-331/2020. Registered with the Ministry of Justice of the Republic of Kazakhstan dated December 28, 2020 no. 21934.

Unofficial translation

Pursuant to paragraph 3 of Article 100 of the Code of the Republic of Kazakhstan “On Public Health and Healthcare System” and in line with sub-paragraph 113) of paragraph 15 of the Regulations on the Ministry of Health of the Republic of Kazakhstan, approved by Decree of the Government of the Republic of Kazakhstan № 71 of February 17, 2017, **I HEREBY ORDER**:

Footnote. The preamble is reworded by order of the Minister of Health of the RK № 60 of 05.04.2023 (shall come into effect upon expiry of ten calendar days after the day of its first official publication).

1. To approve the attached Sanitary Rules "Sanitary-epidemiological requirements for the collection, use, transportation, storage and burial of production and consumer wastes".

2. To declare to be no longer in force the:

1) order of the Minister of Healthcare of the Republic of Kazakhstan от dated April 23, 2018 № 187 "On approval of the Sanitary Rules "Sanitary-epidemiological requirements for the collection, use, transportation, storage and burial of production and consumer wastes" (registered with the Register of State Registration of Regulatory Legal Acts under № 17242, published on August 10, 2018 in the Reference Control Bank of Regulatory Legal Acts of the Republic of Kazakhstan);

2) clause 13 of the amended and modified List of certain orders of the Ministry of Healthcare of the Republic of Kazakhstan and of the Ministry of National Economy of the Republic of Kazakhstan, approved by the of the Minister of Healthcare of the Republic of Kazakhstan dated July, 2020 № ҚР ДСМ-78/2020 (registered with the Register of State Register of Regulatory Legal Acts of the Republic of Kazakhstan as № 20935, published on July 6, 2020 in the Reference Control Bank of Regulatory Legal Acts of the Republic of Kazakhstan).

2. The Committee of Sanitary and Epidemiological Control of the Ministry of Healthcare of the Republic of Kazakhstan in accordance with the procedure established by the law of the Republic of Kazakhstan shall ensure:

1) state registration of this order with the Ministry of Justice of the Republic of Kazakhstan;

2) placement of this order on the Internet resource of the Ministry of Healthcare of the Republic of Kazakhstan;

3) within ten working days after the state registration of this order with the Ministry of Justice of the Republic of Kazakhstan submission to the Legal Department of the Ministry of Healthcare of the Republic of Kazakhstan of information about implementation of measures stipulated by subclauses 1) and 2) of this clause.

3. Control over execution of this order shall be entrusted to the supervising Vice-Minister of Healthcare of the Republic of Kazakhstan.

4. This order shall come in force upon expiry of twenty-one calendar day after the day of its first official publication.

Acting Minister of Healthcare
of the Republic of Kazakhstan *M. Shoranov*

"AGREED"
Ministry of Industry and Infrastructural Development
of the Republic of Kazakhstan

"AGREED"
Ministry of Ecology,
Geology and Natural Resources
of the Republic of Kazakhstan

Approved
by the order of the
Acting Minister of Healthcare
of the Republic of Kazakhstan
dated December 25, 2020
№ ҚР ДСМ-331/2020

Sanitary Rules "Sanitary-epidemiological requirements for the collection, use, transportation, storage and burial of production and consumer wastes"

Chapter 1. General Provisions

1. These Sanitary Rules “Sanitary and Epidemiological Requirements for the Collection, Use, Application, Decontamination, Transportation, Storage and Burial of Production and Consumer Wastes” (hereinafter – the Sanitary Rules) have been elaborated under paragraph 3 of Article 100 of the Code of the Republic of Kazakhstan “On Public Health and Healthcare System” (hereinafter - the Code) and sub-paragraph 113) of paragraph 15 of the Regulation on the Ministry of Health of the Republic of Kazakhstan, approved by Decree of the Government of the Republic of Kazakhstan № 71 of February 17, 2017 (hereinafter - the

Regulation) and establish sanitary and epidemiological requirements for the collection, use, application, neutralisation, transportation, storage and disposal of production and consumer wastes.

Footnote. Paragraph 1 is revised by order of the Minister of Health of the Republic of Kazakhstan № 60 of 05.04.2023 (shall take effect ten calendar days after the date of its first official publication).

2. The following definitions shall be used in these Sanitary Rules:

1) discharge stations – structures designed to receive and discharge liquid waste into the sewerage system from areas of a populated area that are not equipped with sewerage systems;

2) sewage disposal fields, ploughing fields – a specially designated area outside a populated area for the collection and disposal of liquid waste;

3) scheduled and regular sanitary cleaning – a system of measures for collecting and removing waste with an established frequency;

4) land reclamation – a set of works aimed at restoring disturbed lands for a specific intended use, including adjacent land plots that have completely or partially lost their value as a result of the negative impact of disturbed lands, as well as improving environmental conditions;

5) municipal waste – waste generated by consumption in populated areas, including as a result of human activity, as well as production waste similar to them in composition and nature of formation;

6) tailings storage facility – a complex of special structures and equipment designed for the storage or disposal of radioactive, toxic and other waste from mineral processing, referred to as tailings;

7) waste accounting – a system for collecting and providing information on the quantitative and qualitative characteristics of waste and methods of handling it;

8) waste disposal – operations for the burial and destruction of waste;

9) waste disposal – reduction or elimination of hazardous properties of waste by mechanical, physical-chemical or biological treatment;

10) waste recycling – use of waste as secondary material or energy resources;

11) waste disposal – placement of waste in a designated storage location for an unlimited period, eliminating the hazardous impact of buried waste on public health and the environment;

12) waste processing – physical, chemical or biological processes, including sorting, aimed at extracting raw materials and (or) other materials from waste that are subsequently used in the production (manufacturing) of goods or other products, as well as changing the properties of waste to facilitate their handling, reduce their volume or hazardous properties;

13) waste hazard class - a numerical characteristic of waste that determines the type and degree of its hazard in terms of toxic impact on human health and the environment;

14) type of waste – a set of wastes that have common characteristics in accordance with their origin, properties and handling technology, determined based on a waste classifier;

15) conservation of tailings facilities – temporary cessation of activities related to the transportation of tailings and their placement in a tailings storage facility. Tailings facilities and the tailings storage facility shall be isolated to eliminate negative impacts on the environment;

16) liquidation (burial) of the tailings facility – cessation of the activity of transporting tailings and placing them in the tailings storage facility. In this case, it shall be necessary to liquidate all buildings and structures of the tailings facility, and the tailings storage facility shall be isolated in such a way as to exclude the impact on the environment;

17) municipal solid waste – municipal waste in solid form;

18) landfills for solid municipal waste – special structures designed for the isolation and disposal of solid municipal waste;

19) hazardous chemicals – substances with properties that have a direct or potentially harmful effect on human health and the environment;

20) medical waste – waste generated in the process of providing medical services and carrying out medical procedures;

21) production waste (industrial waste) – residues of raw materials, materials, substances, products, objects generated in the process of production of products, performance of work (services) and that have completely or partially lost their original consumer properties;

22) production facility – an object of economic activity associated with the manufacturing products, performance of work and provision of services that are carried out using processes, equipment and technology that are sources of impact on the environment and human health;

23) radioactive waste – radioactive substances, nuclear materials or radionuclide sources with a radionuclide content above the exclusion level, the further use of which is not envisaged;

24) sanitary protection zone (hereinafter referred to as SPZ) – a territory separating special-purpose zones, as well as industrial organizations and other production, communal and storage facilities in a populated area from nearby residential areas, buildings and structures for housing and civil purposes to reduce the impact of unfavourable factors on them ;

25) sanitary cleaning – a system of measures aimed at collecting, removing and rendering harmless waste generated in a populated area as a result of the vital activities of the population;

26) liquid waste – any waste in liquid form, except for wastewater;

27) wastewater – water generated as a result of human economic activity or in a polluted area, discharged into natural or artificial water bodies or onto the terrain;

28) residential area – part of the territory of a populated area intended for the placement of residential, public (social and business) and recreational zones, as well as individual parts of

engineering and transport infrastructure, other objects, the placement and activities of which do not have an impact requiring special sanitary protection zones;

29) consumer waste – residues of products, goods and other substances formed during the process of their consumption or use, as well as goods (products) that have completely or partially lost their original consumer properties;

30) toxic waste – waste containing substances that, if released into the environment, pose a threat to humans as a result of bioaccumulation and/or toxic effects on biotic systems;

31) state body in the sphere of sanitary and epidemiological welfare of the population - a state body implementing state policy in the sphere of sanitary and epidemiological welfare of the population, control and supervision over compliance with the requirements established by regulatory legal acts in the sphere of sanitary and epidemiological welfare of the population and other legislative acts of the Republic of Kazakhstan.

Footnote. Paragraph 2 – as amended by the order of the Minister of Healthcare of the Republic of Kazakhstan dated 17.04.2024 № 13 (shall come into effect upon expiry of ten calendar days after the day of its first official publication).

3. Consumer wastes are divided into the following types:

1) solid household wastes (hereinafter referred to as "the SHW");

2) medical wastes (hereinafter referred to as "the MW").

Chapter 2. Sanitary-epidemiological requirements for the collection, use, transportation, storage and burial of production wastes

4. Collection and temporary storage of production wastes shall be carried out by individuals and legal entities during the operation of facilities, buildings, constructions, structures and other facilities, as a result of which production wastes are formed, with subsequent removal independently or by specialized entities by concluding appropriate agreements for further neutralization, burial, use or utilization.

At production facilities, collection and temporary storage of production wastes shall be carried out at special sites (places) corresponding to the hazard class of wastes. Wastes, as it accumulates, shall be collected separately for each waste group in accordance with the hazard class.

5. The size of SPZ from the place of waste storage (site) to the territory of residential development, production and municipal facilities shall be established by the requirements of order of the Acting Minister of Health of the Republic of Kazakhstan № KR DSM-2 of January 11, 2022 “On Approval of the Sanitary Rules “Sanitary and Epidemiological Requirements for Sanitary Protection Zones of Facilities that are Facilities Affecting the Habitat and Human Health” (recorded in the Register of State Registration of Regulatory Legal Acts under № 26447) (hereinafter - Order № KR DSM-2).

Footnote. Paragraph 5 - as revised by order of the Minister of Health of the Republic of Kazakhstan № 60 of 05.04.2023 (shall take effect ten calendar days after the date of its first official publication).

6. Determination of waste hazard classes shall be carried out by territorial divisions of the state body in the field of sanitary and epidemiological welfare of the population in accordance with subclause 12) of article 9 of the Code.

7. Determination of the hazard class of waste removed outside the facility shall be made for each type of waste within three months from the date of its formation and shall be subject to revision and updating in case of technology change or when switching to other raw materials, as well as in cases when the chemical composition of the waste changes/ Waste from facilities stored at own landfills shall also be subject to determination of the hazard class .

8. According to the degree of impact on human health and the environment, wastes are classified into the following five hazard classes:

1) 1 class – acutely hazardous;

2) 2 class – highly hazardous;

3) 3 class – moderately hazardous;

4) 4 class – low hazardous;

5) 5 class – non-hazardous.

9. The volume and (or) period of accumulation (temporary storage) of waste shall correspond to the requirement of Article 320 of the Environmental Code of the Republic of Kazakhstan.

Wastes in liquid and gaseous state shall be stored in hermetically sealed containers. As waste accumulates, it shall be removed from the territory of the production facility or neutralised within the production facility.

Footnote. Paragraph 9 as reworded by order of the Minister of Health of RK № 60 of 05.04.2023 (shall go into effect ten calendar days after the date of its first official publication) .

10. The permissible volume of industrial wastes on the territory of an industrial site (hereinafter referred to as the industrial site) is determined by the entities independently, not exceeding the capacity of a special site (place) in accordance with clause 4 of these Sanitary Rules.

11. Accumulation, storage and burial of wastes shall be allowed in the presence of specially built sludge, slag, tailings, ash collectors and dumps, structures that protect the environment and the population.

12. Production wastes of hazard class 1 shall be stored in sealed containers (steel drums, containers). As the container is filled, the container with wastes is closed with a steel lid, if necessary, it is welded with electric gas welding and the packaging with hazardous wastes is labeled with hazardous properties.

13. Production wastes of hazard class 2 shall be stored, according to the aggregate state, in plastic bags, bags, barrels and containers that prevent the spread of harmful substances (ingredients).

14. Production wastes of hazard class 3 shall be stored in containers that provide localized storage, which allows for loading and unloading, transport operations and excludes the spread of harmful substances.

15. Production wastes of hazard class 4 shall be stored openly on an industrial site in the form of a cone-shaped pile, from where they are loaded into vehicles by a forklift and delivered to the place of utilization or burial.

16. Solid wastes, including bulk wastes, shall be stored in containers, plastic, paper bags or bags, as they accumulate, they are taken to landfills.

17. The site for temporary storage of wastes shall be placed in the territory of production facility on the leeward side. The site is covered with a solid and impervious material for toxic waste (substances), banked, with a drain device and an inclination towards the treatment facilities. The direction of surface runoff from the sites into the general rainwater outlet is prohibited. For surface runoff from the site, special treatment facilities are provided to ensure capturing toxic substances, their purifying and neutralizing. The site shall provide for the protection of wastes from the effects of precipitation and wind.

18. Neutralization of toxic production wastes (hazard classes 1 and 2) shall be carried out at the landfill sites for toxic production wastes.

19. For the neutralization of production waste (hazard classes 3 and 4), it is allowed to jointly process a part of production wastes with consumption wastes at the appropriate facilities and storage of a part of production waste at the SHW landfill.

20. The amount of transported wastes corresponds to the cargo volume of the vehicle. When transporting production wastes, environmental pollution is prohibited at the places of their injection, transportation, loading and unloading.

21. Technological processes related to the loading, transportation and unloading of wastes of hazard classes from 1 to 3 shall be mechanized.

22. A vehicle for the transport of semi-liquid (pasty) waste shall be equipped with a hose device for draining.

23. When transporting solid and dusty waste, the vehicle shall be equipped with a protective film or covering material.

24. Dusty waste shall be moistened at all stages: during loading, transportation and unloading.

25. When transporting industrial waste of hazard classes 1 and 2, the presence of third parties is prohibited, except for the person driving the vehicle and the personnel accompanying the cargo.

26. At facilities that use wastes as raw materials, automation and mechanization of technological processes shall be provided.

27. Industrial waste shall be disposed of in accordance with the hazard class outside the industrial site of the subject and the residential area of populated areas, except for ash dumps or ash dumps of operating combined heat and power plants (hereinafter referred to as HPP), thermal power plants (hereinafter referred to as TPP).

Footnote. Paragraph 27 – as amended by the order of the Minister of Healthcare of the Republic of Kazakhstan dated 17.04.2024 № 13 (shall come into effect upon expiry of ten calendar days after the day of its first official publication).

28. Landfills for the burial and storage of non-recyclable waste shall be located outside the residential area of the settlement.

Footnote. Paragraph 28 – as amended by the order of the Minister of Healthcare of the Republic of Kazakhstan dated 17.04.2024 № 13 (shall come into effect upon expiry of ten calendar days after the day of its first official publication).

29. Disposal of solid and dusty wastes of hazard classes 2 and 3, toxic ingredients of which do not dissolve in water, shall be carried out at industrial waste landfills. Dumping wastes in pits shall be carried out with layer-by-layer compaction. The highest level of wastes in the pits shall be designed below the planning mark adjacent to the territory of the pits by at least 2 meters (hereinafter referred to as "the m").

30. When equipping the pits, the width of the territory adjacent to the pits shall be provided for at least 8 m.Burial shall be allowed with soil with a filtration coefficient of no more than 6-10 meters per day (hereinafter referred to as m / day).

31. Burial of dusty wastes shall be carried out in pits, taking into account measures that guarantee the exclusion of the spread of these wastes by the wind. After each loading into the pit, dusty wastes shall be isolated with a layer of soil at least 20 centimeters (hereinafter referred to as "the cm") thick.

32. Burial of solid and paste-like wastes of hazard classes 2 and 3 containing toxic, water-soluble substances shall be carried out in pits with insulation of the bottom and side walls in accordance with the requirements of state standards in the field of architecture, urban planning and construction, according to subclause 23-16) of article 20 of the Law of the Republic of Kazakhstan dated July 16, 2001 " On Architectural, Town-planning and Construction Activity in the Republic of Kazakhstan" (hereinafter referred to as "the state regulations in the field of architecture, urban planning and construction").

33. The backfilled section of the pit shall be covered with a compaction layer of soil, along which wastes are transported to fill the rest of the pit. Delivery of wastes through a compacted soil layer prevents its destruction.

34. When burying wastes of hazard class 1 with poorly soluble toxic substances, measures shall be taken to prevent their migration into ground and subsoil water:

1) lining the walls and the bottom of the excavation with a clay layer of at least one meter with a filtration coefficient of no more than 10 m / day;

2) laying at the bottom and fixing the walls of the excavation with concrete slabs, filling the joints with bitumen, tar or waterproof materials.

35. Burial of water-soluble wastes of hazard class 1 shall be carried out in pits in steel containers or cylinders with a wall thickness of at least 10 millimeters (hereinafter referred to as “mm”) with double control for tightness before and after filling them, which are placed in a concrete box.

36. It is allowed to combine production wastes of class 4 with consumption waste at the burial sites of the latter or use it as an insulating material or planning works on the territory of landfills.

37. The pits filled with wastes shall be insulated with a compacted layer of soil 2 m thick, thereafter they shall be covered with a waterproof coating of tar, quick-hardening resins, cement tar.

38. Sealing layers, and waterproof coverings protrude over the area adjacent to the excavations. Waterproof coverings extend beyond the dimensions of the pit by 2-2.5 m on each side and dock with the coverings of neighboring pits. The joints are formed in such a way that they facilitate the collection and removal of storm water and melt water from the surface of the pits to a special evaporation area.

39. Organization of works on equipping an insulating coating, drainage channels of foundation pits, methods of filling them shall be decided in each case, taking into account the relief of the site and hydrogeological conditions.

40. When neutralizing production wastes to be incinerated, furnaces (incinerators) shall be used with an operating mode at a temperature of at least plus (hereinafter referred to as the "+ ") 1000 - +1200 degrees Celsius (hereinafter referred to as the oC) with afterburner chambers. Production wastes, for which effective methods have been developed for the extraction of heavy metals and substances, radioactive wastes, oil products subject to regeneration, shall not be accepted to the landfill.

41. Burial of wastes is liquid state is prohibited. Liquid wastes of hazard class 1-3, before being transported to the landfill, shall be transferred to a pasty consistency.

42. Tailings storage facilities shall be located both on the territory of the ore processing facility itself (within a single industrial site), and at a distance from it on an independent (alienated) territory, taking into account the SPZ.

43. A tailings storage facility, located at a distance of more than 5 km from settlements and transport routes, in an area not suitable for agricultural purposes, is not fenced, provided that the dose rate of gamma radiation from the soil surface and from the dam body does not exceed 0.3 mSv / hour per hour above the natural background. Appropriate warning and prohibition signage are posted around the tailings storage facility.

44. It is prohibited to use the territory of the spent tailings storage facility for any purpose. On the territory of the SPZ, the construction of housing, children's facilities, social, cultural

and consumer services, as well as the arrangement of places for recreation and sports is prohibited.

45. The area where the tailings storage facility is located provides for the organization of an SPZ of the required size, the location of which is linked to the long-term development plan for the area and the tailings storage facility.

46. It shall be prohibited to place tailings storage facilities in areas where surface aquifers that are sources of water supply extend, nearby (less than 1000 m) to the nearest edge of large rivers and lakes that are of national economic importance.

Footnote. Paragraph 46 – as amended by the order of the Minister of Healthcare of the Republic of Kazakhstan dated 17.04.2024 № 13 (shall come into effect upon expiry of ten calendar days after the day of its first official publication).

47. On the territory of the object, tailings storage facilities shall be located at a distance equal to the half of the size of its SPZ from production, administrative and amenity buildings of the enterprise, but not closer than 500 m.

48. Tailings storage facilities shall be located:

1) downstream of drinking water withdrawal points and fishery farms;

2) in areas with poor-filtering soils (clay, loam, shale), with groundwater deposits at their highest rise (taking into account the rise of water during the operation of tailings storage facilities) at least 2 m from the lower level of the stored waste. Under unfavorable hydrogeological conditions at the selected site, measures shall be taken to reduce the level of groundwater.

49. Before the start of the burial of a tailings storage facility, activities on draining it to a condition that allows using equipment necessary for earthworks shall be held.

50. The buried tailings storage facility shall be fenced with a fence at least 2 m high. The fence shall be located not closer than 30 m from the tailings storage facility, subject to the condition, that outside the fence, the dose rate of gamma radiation from the soil surface and from the body of the dam does not exceed 0.3 microsieverts per hour (hereinafter referred to as the mSv / hour) above the natural background.

51. For the buried tailings storage facility, the head of the facility, who previously operated it, shall draw up a passport in accordance with Appendix 1 to these Sanitary Rules, with its subsequent transfer to local executive bodies.

52. Reclamation (decommissioning), temporary shutdown of specially built sludge, slag, tailings, ash collectors and dumps and other structures shall be carried out according to project solutions that ensure the protection of the environment and the population.

Chapter 3. Sanitary-epidemiological requirements for the collection, use, neutralization, transportation of consumer wastes

Paragraph 1. Sanitary-epidemiological requirements for the collection, transportation and neutralization of solid household wastes

53. On the territory of inhabited localities, collection, use, application, neutralization, transportation, storage and burial of wastes of consumption shall be carried out by specialized organizations. In small inhabited localities, in the absence of specialized organizations for the collection, removal and maintenance of SDW burial sites, places with independent waste disposal are organized, under the control and maintenance of the service of the local executive body.

54. Food wastes from public catering facilities, trade, general education, sanatorium-resort organizations, with the exception of infectious diseases hospitals, including anti-tuberculosis, dermatovenerological, shall be collected in containers with lids, stored in a refrigerated room or in refrigerators. Food wastes, with the exception of food waste from infectious hospitals, including anti-tuberculosis, dermatovenerologic, may be used for livestock feed.

55. In inhabited localities (on the territory of housing stock, organizations, cultural institutions, recreation areas), special sites are allocated for placing disposal containers with access for transport. The site is arranged with a hard surface and is fenced from three sides to a height that excludes the possibility of spreading (dispersing) wastes by the wind, but not less than 1.5 m.

56. Containers for SHW collection are fitted with lids. In settlements, the container site is located at a distance of at least 25 m from residential and public buildings, children's facilities , sports grounds and recreation areas for the population, excluding temporary settlements (shift camps, non-stationary facilities and structures). In aredated existing development, in the absence of the possibility of observing sanitary breaks, distances are established by a commission with the participation of local executive bodies, territorial subdivisions of the state body in the field of sanitary and epidemiological well-being of the population, property owners and other interested parties.

57. Containers are used to collect SHW in a comfortable housing stock; in private households, containers of optional design with lids are allowed.

58. The entity (owner of containers for SHW) places containers taking into account the calculation of the number of containers to be placed, depending on the population using containers, waste accumulation rates, and storage periods. The calculated volume of containers corresponds to the actual accumulation of wastes.

Disposal of SHW shall be carried out timely. The storage time of wastes in containers at a temperature of 0 ° C and below is no more than three days, at a positive temperature - no more than one day.

59. In inhabited localities (on the territory of housing stock, organizations, cultural institutions, recreation areas), regular sanitary cleaning of the territory adjacent to the container site along the perimeter specified in the standard rules for the improvement of the territories of cities and inhabited localities, approved by the order of the Minister of National Economy of the Republic Kazakhstan dated March 20, 2015 № 235 (registered in the

Register of State Registration of Normative Legal Acts under № 10886) and, as necessary, shall be carried out.

60. The owner of containers for SHW shall determine the number of vehicles for transportation of wastes subject to physical development of the site under construction and local conditions of a certain inhabited locality.

61. The owner of vehicles and of containers for SHW arranges a site for washing vehicles outside the economic zone. A washing compartment with cold water supply is provided for at the site. Traffic streams of clean and dirty containers and garbage trucks arriving at the landfill are separated and do not intersect.

62. In the absence of tap water, it is allowed to wash containers at an outside air temperature above + 5 ° C by flushing machines.

63. Wasteswater from washing containers and vehicles shall be sent to cells for evaporation or used to humidify SHW.

64. The owner of the SHW landfill, the landfill arranges a disinfectant concrete bath when leaving the landfill (organized disposal sites) for disinfecting the wheels of garbage trucks. The length of the bath is provided for at least 8 m, width 3 m, depth 0.3 m.

65. A light fence, a drainage trench with a depth of more than 2 m, or an earthen rampart with a height of no more than 2 m shall be established along the perimeter of the entire territory of the SHW landfill, a disposal site.

66. When neutralizing the consumer wastes, the furnaces (incinerators) specified in clause 40 of these Sanitary Rules shall be used. Consumer wastes, for which effective methods have been developed for the extraction of heavy metals and substances, radioactive wastes, oil products to be regenerated, shall not be accepted to the landfill.

Paragraph 2. Sanitary-epidemiological requirements for the collection, transportation, storage, neutralization, use of medical wastes

67. Collection, transportation and storage of MW shall be carried out according to their hazard degree.

68. By hazard degree, MW are divided into 5 hazard classes:

1) class A – non-hazardous MW, similar to SHW;

2) class Б – hazardous (epidemiologically) MW;

3) class В – extremely (epidemiologically) hazardous MW;

4) class Г – toxicologically hazardous MW compositionally similar to industrial;

5) class Д – radioactive MW.

69. Workers involved in the collection, neutralization, transportation, storage and burial of medical wastes shall undergo preliminary (upon admission to work) and periodic medical examinations in accordance with the order of the Acting Minister of Healthcare of the Republic of Kazakhstan dated October 15, 2020 № ҚR DSM-131/2020 “On the approval of target groups of persons subject to compulsory medical examinations, as well as the rules and

frequency of their conduct, the volume of laboratory and functional tests, medical contraindications, a list of harmful and (or) hazardous production factors, professions and works, fulfillment of which preliminary compulsory medical examinations are carried out upon admission to work and periodic compulsory medical examinations and rules for the provision of the state service "Undergoing preliminary compulsory medical examinations" (registered in the Register of State Registration of Regulatory Legal Acts under № 21443) (hereinafter referred to as the Order № ҚР ДСМ-131/2020).

70. The premises for temporary storage of the MW shall be envisaged at healthcare facilities as per order of the Minister of Health of the Republic of Kazakhstan № KR DSM-96 /2020 of August 11, 2020 “On Approval of Sanitary Rules "Sanitary and Epidemiological Requirements for Healthcare Facilities” (recorded in the Register of State Registration of Regulatory Legal Acts under № 21080).

Footnote. Paragraph 70 is revised by order of the Minister of Health of RK № 60 of 05.04.2023 (shall come into effect ten calendar days after the date of its first official publication).

71. Collection, reception and transportation of MW are carried out in disposable bags, containers, safe disposal boxes (hereinafter referred to as the SDB), containers. Containers for each MW class, containers and waste collection bags are marked with different colors. The design of containers shall be moisture-proof, preventing the possibility of contact of unauthorized persons with the contents.

72. Persons transporting MW, from the moment they are loaded onto a vehicle and until they are received at a designated place, must comply with safe handling measures.

73. Tramping the MW by hand is prohibited. Collecting, analyzing the MW without personal protective equipment is prohibited.

74. MW of classes Б, В are neutralized at special facilities for neutralization: two-chamber furnaces (incinerators) operating at a temperature of at least +1000 - + 1200°C with exhaust gas afterburner chambers that have gas cleaning or are neutralized by alternative methods:

1) autoclaving, which involves sterilization of waste with steam under pressure;

2) microwave treatment;

3) chemical treatment.

MW incineration products and neutralized waste become the MW of class A and are subject to burial as SHW, or used as secondary raw materials.

Burial of wastes of class Б and В neutralized by alternative methods at the SHW landfill shall be allowed only when their presentation has changed (crushing, sintering, pressing, etc.) and the impossibility of their reuse.

Control of the operation of the apparatus and the quality of neutralization shall be arranged when using alternative methods of neutralization. Autoclaves performance is

assessed by chemical, bacteriological and physical methods using chemical and biological tests, thermochemical indicators.

Physical and chemical methods are used to assess the parameters of the operating mode of steam autoclaves during the sterilization cycle, bacteriological methods are used to assess the efficiency of the autoclave.

Each batch of decontaminated waste is registered in a log with the date, weight of waste, sterilization time, sterilization mode, test control results, control coupon (pasted in), operator's signature.

75. Used stabbing and sharp objects (needles, feathers, razors, ampoules) are accepted in SDB, which are subject to disposal without prior analysis.

76. Two-chamber furnaces (incinerators) shall be located with due regard to the requirements of Order № KR DSM-2.

It shall be prohibited to incinerate medical waste on the territory of facilities and settlements outside specialised installations.

Footnote. Paragraph 76 is reworded by order of the Minister of Health of RK № 60 of 05.04.2023 (shall be enacted ten calendar days after the date of its first official publication).

77. The entity carrying out the disposal of MW shall draw up a document confirming the acceptance of the MW for neutralization, indicating the class and volume of wastes.

78. Receiving of medical wastes is carried out in packaged form with qualitative and quantitative accounting in a special journal.

79. A special installation for the neutralization of medical waste is located and operated in accordance with the manufacturer's technical documentation.

80. At facilities for the neutralization of medical wastes, a room for the temporary storage of medical wastes with an area of at least 12 square meters (hereinafter referred to as the m2) is provided and is equipped with supply and exhaust ventilation, refrigeration equipment for storing biological wastes, if any, separate racks, shipping containers, scales , sink with hot and cold water supply, germicidal lamp.

81. Conditions for washing, storing and disinfecting containers shall be created in each premice.

82. The floor, walls, ceiling of the premises for temporary storage MW are smooth, without gaps, made of materials resistant to detergents and disinfectants.

83. In addition to the main premises, there are rooms for personnel with an area of at least 6 m2, a store room for cleaning equipment, detergents and disinfectants with an area of at least 4 m2, and a washing returnable container with an area of at least 4 m2.

84. The washing house shall be equipped with a bathtub with running cold and hot water or a tap with a floor drain. To ensure that the personnel comply with the rules of personal hygiene, a sink is allocated with running cold and hot water, equipped with means for washing and drying hands.

85. The following personal hygiene conditions are observed at the places where medical wastes are neutralized:

1) work is carried out in special clothing, protective masks, screens, disposable rubber or latex gloves;

2) не допускается курение and прием пищи на рабочем месте;

3) storage of personal and special clothing is carried out separately in closets.

86. MW of classes B, C, G shall be transported in a vehicle equipped with a waterproof closed body, easily subjected to disinfection treatment as required by Order of the Minister of Health of the Republic of Kazakhstan № KR DSM-5 of January 11, 2021 "On Approval of the Sanitary Rules "Sanitary and Epidemiological Requirements for Vehicles for the Transportation of Passengers and Cargoes" (recorded in the Register of State Registration of Regulatory Legal Acts under № 22066) (hereinafter - Order № KR DSM-5).

Footnote. Paragraph 86 is revised by order of the Minister of Health of RK № 60 of 05.04.2023 (shall take effect ten calendar days after the date of its first official publication).

87. The content of the vehicle transporting hazardous waste shall conform to the requirements of Order № KR DSM-5.

Footnote. Paragraph 87 is reworded by order of the Minister of Health of RK № 60 of 05.04.2023 (shall be put into effect ten calendar days after the date of its first official publication).

88. Burial of MW of class Г shall be carried out at landfills for hazardous waste, and in the case of their neutralization at landfills SHW.

89. Organic wastes of operating rooms (organs, tissues) from non-infectious patients shall be buried in specially designated places of cemeteries as per order of the Minister of Health of the Republic of Kazakhstan № KR DSM-81 of August 19, 2021 "On Approval of the Sanitary Rules "Sanitary and Epidemiological Requirements for Cemeteries and Funeral Facilities" (recorded in the Register of State Registration of Regulatory Legal Acts under № 24066).

Footnote. Paragraph 89 is revised by order of the Minister of Health of RK № 60 of 05.04.2023 (shall become effective ten calendar days after the date of its first official publication).

90. Used fluorescent lamps, mercury-containing devices and equipment are transported and stored in tightly closed containers to prevent breakage during transport and storage.

Paragraph 3. Sanitary and epidemiological requirements for yard installations and cesspools

91. On the territory of residential buildings and objects connected to centralized water supply and (or) sewerage systems, it is allowed to build and re-equip yard installations, cesspools in accordance with the requirements of state regulations in the field of architecture, urban planning and construction.

92. Liquid consumer wastes from residential houses (residential buildings) that are not connected to the water supply and (or) drainage systems of the inhabited locality are discharged into waterproof cesspools (ground part with a cover and a grating for separating solid fractions), with subsequent removal by special vehicles and drainage at drain stations, the locations of which are determined by the territorial divisions of the state body in the field of sanitary and epidemiological well-being of the population, the territorial body of the authorized state body in the field of environmental protection and the organization for water supply and (or) wastewater disposal. In the presence of outdoor latrines, a common cesspool is allowed.

93. Sanitary facilities and public latrines not connected to the drainage system are removed from residential and public buildings, from playgrounds for children and recreation of the population at a distance of at least 25 m, with the exception of private housing buildings (including summer cottages) - at least 10 m, from wells and drainage of springs - at least 50 m.

Chapter 5. Sanitary and epidemiological requirements to storage and burial of wastes

94. Storage and burial of wastes shall be carried out in landfills.

95. The size of a land plot for a SHW landfill is established on the assumption of the term of accumulation of wastes during 20 - 25 years.

96. Places for the landfill are provided on separate, undeveloped, ventilated areas, not flooded by storm, melt and flood waters, which allow the implementation of engineering solutions excluding the pollution of inhabited localities and are areas for mass recreation of people, utility water supply, mineral springs, surface water bodies and groundwater.

97. The landfill is placed on the leeward side of inhabited localities, taking into account the prevailing winds, down the places of water intakes of domestic and drinking water supply along the rivers, down and outside the boundaries of the zones of water intake of open reservoirs, wintering pits, places of mass spawning and feeding of fish.

98. The landfill is located in areas where groundwater occurs at a depth of more than 20 m and is covered by low-permeability rocks with a filtration coefficient of no more than 10 m / day. The base of the bottom of the landfill is placed at least 4 m from the highest main standing of the groundwater level. The bottom and walls are arranged with waterproofing.

99. The size and landscaping of the SPZ of landfills and dumps shall be performed under Order № KR DSM-2.

Footnote. Paragraph 99 is reworded by order of the Minister of Health of RK № 60 of 05.04.2023 (shall become effective ten calendar days after the date of its first official publication).

100. Placing a landfill on the reserve territories of housing construction, expansion of production facilities, recreational zones, in river valleys, gullies, in areas with soil subsidence,

in places of development of karst processes, in the territory of occurrence of minerals, in the feeding zone of underground sources of drinking water is prohibited.

101. The slope of the landfill in the direction of populated areas, production facilities, agricultural land and watercourses is prohibited.

102. Production wastes of hazard class 4 are received without restrictions and are used as insulating material. These wastes are characterized by the content of an aqueous extract (1 liter of water per 1 kilogram of wastes) of toxic substances at the level of the SHW filtrate, an indicator of biochemical oxygen demand (hereinafter referred to as the BOD) and chemical oxygen demand (hereinafter referred to as the COD) - not more than 300 milligrams per liter (hereinafter referred to as the mg / l), homogeneous structure with a fraction size of less than 250 mm.

103. Production wastes of hazard class 4, received to the SHW landfills without restrictions and used as insulating material, are given in the list according to the Table 1 of Appendix 2 to these Sanitary Rules.

Production wastes of hazard classes 3 and 4, received to the landfills in limited amount and kept together (established standards per 1000 cubic meters (hereinafter referred to as the " m3") of SHW), are given in the list according to Table 2 Appendix 2 to these Sanitary Rules.

Production wastes of hazard classes 3 and 4, received in limited amount and kept in compliance with special conditions are given in the list according to the Appendix 3 to these Sanitary Rules.

104. The landfill is divided into two zones: the SHW storage area and the area for the location of utility facilities.

The storage area is divided into separate sections (cells), which are filled in turn with wastes, according to the schedule for the operation of cells drawn up by the landfill administration.

105. Premises for sanitary services are provided for the personnel of landfills. The dining room is at least equipped with a household refrigerator and a sink for washing dishes.

106. Workers involved in waste management work in special clothing, special footwear and personal protective equipment.

107. Personnel involved in the collection, disposal of solid and liquid wastes, and the operation of related facilities undergo pre-employment and periodic medical examinations in accordance with the Order № ҚР ДСМ-131/2020.

108. Control of the composition and accounting of incoming wastes, waste distribution in the working part of the landfill, technological cycle for waste isolation shall be provided for at the landfill.

109. Consumer wastes and some types of solid production wastes (of hazard classes 3 and 4), as well as non-hazardous waste, the class of which is established by experimental methods shall be accepted to SHW landfills.

110. For joint storage SHW accept non-explosive and non-self-igniting production wastes with a moisture content of no more than 85%. Liquid and paste-like wastes are not accepted to the SHW landfill.

111. The landfill has a list (list) of serviced organizations with an indication of wastes and their amount.

112. Production wastes of hazard classes 3 and 4 are accepted in limited quantities (no more than 30% of the SHW mass) and stored together with household waste, characterized by the content of toxic substances in the aqueous extract at the level of the SHW filtrate and BOD 20 and COD values 400-5000 mg / l oxygen.

113. It is prohibited to accept waste that is an epidemiological hazard without being neutralized at special facilities to SHW landfills.

114. Radioactive wastes shall be disposed of and buried as per order of the Minister of Health of the Republic of Kazakhstan № KR DSM-90 of August 25, 2022 "On Approval of the Sanitary Rules "Sanitary and Epidemiological Requirements for Radiation Hazardous Facilities" (recorded in the Register of State Registration of Regulatory Legal Acts under № 29292).

Footnote. Paragraph 114 is reworded by order of the Minister of Health of RK № 60 of 05.04.2023 (shall take effect ten calendar days after the date of its first official publication).

115. It is prohibited to accept biowastes: carcasses of dead animals, confiscated goods, remains of meat carcasses to SHW landfills.

116. For the disinfection of wastes at the landfill, methods of field composting in piles are used, for landfills that receive less than 120,000 m3 SHW per year; the SHW trench storage scheme is used. Trenches are 3-6 m deep and 6-12 m wide at the top. Trenches are arranged perpendicular to the direction of the prevailing winds.

117. The soil obtained from digging trenches shall be used for backfilling after filling the SHW. The length of one trench is arranged taking into account the time of its filling:

1) during the period of temperatures above 0°C, within 1-2 months;

2) during the period of temperatures below 0°C – for the entire period of soil freezing.

118. Direct storage of SHW in water on marshy and flooded areas is prohibited. Prior to using such sites for the SHW landfill, they shall be filled with inert materials to a height exceeding the maximum level of surface or floodwaters by 1 m. A waterproof screen is arranged during bedding.

119. In the green zone of the landfill (along the perimeter), control wells are arranged to monitor the impact of SHW on groundwater, one of them is above the landfill along the flow of groundwater, 1-2 wells are below the landfill.

120. When stocking the SHW, intermediate or final isolation of a compacted layer of waste with a thickness of 2 m with soil or other inert material shall be carried out on a working cell. On flat landfills, waste isolation shall be carried out daily in the summer, at temperatures below + 5 °C - no later than 3 days from the moment of storage.

121. Slags and (or) production wastes: lime, chalk, soda, gypsum, graphite, asbestos cement, slate are used as an insulating material.

122. Portable mesh fences are installed perpendicular to the direction of the prevailing winds to retain light fractions of waste when unloading SHW from garbage trucks and stocking. At least once a shift, the wastes retained by portable shields is collected and placed on the surface of the working card, compacted from above with an insulating layer of soil.

123. Bypass channels that drain groundwater and surface runoff into open water bodies should be regularly cleaned of debris.

124. SHW burning is prohibited on the territory of the landfill, and in case of their spontaneous ignition before the arrival of the fire service, firefighting shall be carried out independently by the landfill personnel.

125. The closure of the landfill shall be carried out after filling it to the height specified in the project. On landfills, the service life of which is less than 5 years, it is allowed to fill in the process by 10% higher than the stipulated vertical mark, taking into account the subsequent shrinkage.

126. The last layer of waste before the closure of the landfill is finally covered with an outer insulating layer of soil.

127. In the final planning of the outer insulating layer, a slope is arranged to the edges of the landfill for water drainage

128. Strengthening of the outer slopes of the landfill shall be carried out from the beginning of the landfill's operation and as its height increases. Soil serves as the material for the outer slopes of the landfill.

129. The arrangement of the upper insulating layer of the landfill shall be determined by the conditions for its use after the closure of the landfill. When using a closed landfill to create a forest park complex, slides for skiing or viewing platforms for observing the area, the thickness of the outer insulating layer is provided for at least 0.6 m.

130. To protect against weathering or soil washout from the slopes of the landfill, they are planted in the form of terraces immediately after laying the outer insulating layer.

131. Using the territory of the reclaimed landfill for capital construction is prohibited.

132. Waste pits, artificially created cavities are collectors of polluted storm water and discharges. In order to return this territory to a state suitable for economic use, its reclamation shall be carried out.

133. It shall be permitted to backfill quarries and other artificially created cavities using non-hazardous waste, SMW and waste of Hazard Classes 3 and 4 of the production facility. It shall also be permitted to use established sites for burial with the definition of SPZ as per Order № KR DSM-2.

Their morphological and physico-chemical composition shall be established when using any types of waste. The total amount of food waste, waste of plant origin shall not exceed 15

%. The landfill site shall comply with the requirements of the established procedure for the design, operation and reclamation of landfills.

Footnote. Paragraph 133 is reworded by order of the Minister of Health of RK № 60 of 05.04.2023 (shall be effective ten calendar days after the date of its first official publication).

134. The size of a SPZ for a reclaimed quarry is taken to be equal to the size of a SPZ not less than 100 m from the nearest edge of the nearest residential building. The reclaimed quarry has fencing and temporary facilities to ensure the performance of works.

135. At the SHW landfill and the industrial waste disposal site, industrial inspection shall be carried out in accordance with the Sanitary Rules "Sanitary and epidemiological requirements for the industrial inspection", approved according to clause 8 of article 51 of the Code.

136. Reclamation (decommissioning) of a SHW landfill after its filling shall be carried out in accordance with the project.

137. In the event that atmospheric pollution is established above the MAC at the SPZ border and above the MAC in the working area, measures are taken to reduce the level of pollution.

138. The size of the SPZ of discharge stations shall be established as per order № KR DSM-2.

Footnote. Paragraph 138 is revised by order of the Minister of Health of RK № 60 of 05.04.2023 (shall become effective ten calendar days after the date of its first official publication).

139. Designed, being constructed, operated drainage stations shall comply with the requirements of these Sanitary Rules and state regulations in the field of architecture, urban planning and construction.

140. The site for the discharge station is located on the leeward side against residential and public buildings and structures. The size of the land plot is determined at the rate of 0.2 hectares per 1 m3.

141. Discharge of liquid wastes from vacuum-filled tankers shall be carried out through the intake hoses into the receiving facilities.

142. Water is added to the liquid wastes at a rate of 1: 1, solid impurities are crushed at waste crushing plants and released into the drainage system, and in their absence, they are taken daily to places designated for SHW neutralization.

143. In inhabited localities not connected to the sewerage system, separate collection of solid and liquid waste shall be carried out. Liquid wastes are collected in waterproof cesspools and transported by cesspool transport to sewage disposal areas or landfill sites.

144. Assimilation fields, ploughing fields shall be arranged at a distance as per Order № KR DSM-2.

Footnote. Paragraph 144 is revised by order of the Minister of Health of RK № 60 of 05.04.2023 (shall take effect ten calendar days after the date of its first official publication).

145. The fields are divided into summer and winter areas and into separate areas (cells). Liquid wastes are poured on the field over the plowed surface and plowed to a depth of 20 cm . Winter plots are plowed in autumn and flooded in winter, in spring, after drying, the plot is plowed again.

146. Sowing of industrial crops is allowed on sewage disposal fields and it is prohibited to use them for sowing vegetable crops.

147. Landfills and sewage disposal sites are fenced, platforms for washing vehicles are installed. The premise for workers is equipped with lighting and water.

Appendix 1
to the Sanitary Rules "Sanitary-epidemiological requirements for the collection, use, transportation, storage and burial of production and consumer wastes"

Certificate of burial of sludge, slag, tailings storage facilities, ash collectors and dumps

Name: _____

№	Activities	Data	Notice
1.	Burial end time		
2.	Brief description of disposal measures		
3.	Organization that carried out the project		
4.	Entity, that carried out the burial		
5.	Organization that accepted the buried object for supervision		
6.	Data of sanitary-dosimetric control		
7.	Restrictions imposed on the buried object and the surrounding area		
8.	Transferred to local executive bodies		

Transferred: _____ Surname, Name, Patronymic (if any)

Accepted: _____ Surname, Name, Patronymic (if any)

Appendix 2
to the Sanitary Rules "Sanitary-epidemiological requirements for the collection, use, transportation, storage and burial of production and consumer wastes"

List of production wastes of hazard class 4 accepted to the solid household waste landfills without restrictions and used as an insulating material

Table 1

№	Type of waste
1	Aluminium silicate sludge СБ-Г-43-6
2	Asbestos-cement scrap
3	Asbestos tailings
4	Bentonite waste
5	Waste graphite from calcium carbide production
6	Gypsum-containing production wastes of vitamin B-6
7	Anhydrous lime, limestone, slime after slaking
8	Chalk precipitated solid waste
9	Aluminum oxide in the form of waste briquettes
10	Silicon oxide (in the production of PVC and A1C13)
11	Paratite waste
12	Sodium sulfate salt melt
13	Silica gel (from non-toxic gas drying absorbers)
14	Silica gel slurry production from filter presses
15	Soda granular sludge
16	Soda-cement production distillation waste in the form of CaSO4
17	Molding core sand mixtures free from heavy metals
18	Chemical water treatment and water softening sludge
19	Sodium chloride wastewater sludge
20	Non-standard chloride lime
21	Slate production solid waste
22	Slags of TPP, boiler houses fired by coal, peat, oil shale or household waste
23	Grinding materials
24	Construction wastes: construction soil, concrete waste, mortar, sand and gravel mix, broken bricks, waste ceramic products, adobe, clay

List of production wastes of hazard classes 3 and 4 accepted to the landfills in limited amount and stocked together with solid household wastes (standards per 1000 m3 of solid household wastes)

Table 2

№	Type of waste	Limited amount of production wastes, tons per 1000 м3 of solid household wastes
1	2	3
1	Still bottoms of acetic anhydride production	3

2	Resite waste (cured formaldehyde resin)	3
3	Solid production wastes of expandable polystyrene plastics	10
Waste from the production of electrical insulating materials:		
1	SRB paper laminate electrical in a sheet form Ш-8,0	10
2	Adhesive tape ЛСНПЛ - 0,17	3
3	Polyethylene tube LDPE	10
4	Varnished glass cloth ЛСЭ - 0,15	3
5	Glass cloth Э2-62	3
6	Fabric-reinforced laminate electrical in a sheet form Б-16,0	10
7	Phenolic resin 03-010-02	10
Solid waste of suspension, emulsion production:		
1	Copolymers of styrene with acrylonitrile or methyl methacrylate	3
2	Polystyrene plastics	3
3	Acrylonitrile butadiene styrene plastics	10
4	Polystyrene	3

Appendix 3
to the Sanitary Rules "Sanitary-epidemiological requirements for the collection, use, transportation, storage and burial of production and consumer wastes"

List of production wastes of hazard classes 3 and 4 accepted to the landfills in limited amount and stocked in compliance with special conditions

№	Type of wastes	Limited amount of production wastes (tons per 1000 м3 of solid household wastes)	Special conditions of stocking at a landfill or preparation at production facilities
1	2	3	4
1	Medicinal charcoal production of vitamin B-6	3	Laying with a layer of no more than 0.2 m
2	Cellulose Acetate Butyrate waste	3	Pressing into bales of no more than 0.3 x 0.3 x 0.3 m in a wet state
3	Wood and sawdust waste	10	Does not contain sawdust used for sprinkling floors in industrial premises
4	Chrome scrap	3	Laying with a layer of up to 0,2 m

5	Non-returnable wooden and paper containers	10	Does not include oiled paper
6	Artificial leather cutoff pieces	3	Laying with a layer of no more than 0.2 m
7	Discolouring clay	3	Laying with a layer of 0.2 m
8	Phaolite dust	3	Packing in bags in the wet state