



**On approval of the Rules for the Establishment of Protected Zones of Heating Network Facilities and Special Conditions for the Use of Land Plots Located Within the Borders of Such Zones**

*Unofficial translation*

Order of the Minister of Energy of the Republic of Kazakhstan dated September 28, 2017 № 331. Registered with the Ministry of Justice of the Republic of Kazakhstan on October 30, 2017 № 15941

*Unofficial translation*

**On approval of the Rules for the Establishment of Protected Zones of Heating Network Facilities and Special Conditions for the Use of Land Plots Located Within the Borders of Such Zones**

In compliance with sub-paragraph 30-3) of Article 5 of the Law of the Republic of Kazakhstan dated July 9, 2004 “On Electric Power Industry” **I HEREBY ORDER:**

1. That the enclosed Rules for the Establishment of Protected Zones of Heating Network Facilities and Special Conditions for the Use of Land Plots Located Within the Borders of Such Zones shall be approved.

2. In accordance with the procedure established by the legislation of the Republic of Kazakhstan, the Department of Electricity and Coal Industry of the Ministry of Energy of the Republic of Kazakhstan shall ensure:

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

2) within ten calendar days from the date of state registration of this order, sending a copy hereof in paper and electronic form both in Kazakh and Russian languages to the Republican State Enterprise on the Right of Economic Management “Republican Center of Legal Information of the Ministry of Justice of the Republic of Kazakhstan” for official publication and inclusion into the Reference Control Bank of Regulatory Legal Acts of the Republic of Kazakhstan;

3) within ten calendar days after the day of the state registration of this order, sending a copy hereof for official publication in periodicals;

4) placing this order on the official Internet resource of the Ministry of Energy of the Republic of Kazakhstan;

5) within ten working days after the state registration of this order with the Ministry of Justice of the Republic of Kazakhstan, submission of the information on the implementation

of measures provided for in subparagraphs 2), 3) and 4) of this paragraph to the Legal Department of the Ministry of Energy of the Republic of Kazakhstan.

3. Control over the implementation of this order shall be imposed on the supervising Vice Minister of Energy of the Republic of Kazakhstan.

4. This order shall enter into force upon the expiry of ten calendar days after the day of its first official publication.

*Minister of Energy  
of the Republic of Kazakhstan*

*K. Bozumbayev*

" A G R E E D "

Deputy Prime Minister  
of the Republic of Kazakhstan -  
Minister of Agriculture  
of the Republic of Kazakhstan  
\_\_\_\_\_ A. Myrzakhmetov  
of October 11, 2017

" A G R E E D "

Minister for Investment and Development  
of the Republic of Kazakhstan  
\_\_\_\_\_ Zh. Kassymbek  
of September 29, 2017

" A G R E E D "

Minister of Internal Affairs  
of the Republic of Kazakhstan  
\_\_\_\_\_ K. Kassymov  
of October 5, 2017

Approved by  
order of the Minister of Energy  
of the Republic of Kazakhstan  
№ 331 of September 28, 2017

## **Rules for the Establishment of Protected Zones of Heating Network Facilities and Special Conditions for the Use of Land Plots Located Within the Borders of Such Zones**

### **Chapter 1. General provisions**

1. The Rules for the Establishment of Protected Zones of Heating Network Facilities and Special Conditions for the Use of Land Plots Located Within the Borders of Such Zones (hereinafter referred to as the Rules) have been developed in compliance with sub-paragraph 30-3) of Article 5 of the Law of the Republic of Kazakhstan of July 9, 2004 "On Electric Power Industry", (hereinafter referred to as the Law) and determine the procedure for the

establishment of protected zones of heating network facilities and special conditions for the use of land plots located within the borders of such zones.

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

1) heat supply networks - a set of devices intended for the transfer of heat energy and (or) heat carrier from sources of heat energy to heat consuming installations, including central heat points and pumping stations;

2) a protected zone of heat supply networks - land plots allotted to ensure the safety of heat supply networks, to create normal operating conditions, prevent their damage, as well as accidents among the population who are in the protection zone of these networks.

Other concepts and definitions used in these Rules shall be applied in accordance with the legislation of the Republic of Kazakhstan in the field of electric power industry.

3. These Rules shall apply to all existing, projected, modernized heat supply networks of the Republic of Kazakhstan and those that are under construction and shall be implemented on its territory by legal entities and individuals.

4. Monitoring of the status of the protected zone of heat supply networks shall be provided by organizations that manage these networks through planned, periodic, as well as via unscheduled inspections in the event of technological disruptions in the networks.

5. The protected zones of heat supply networks shall be established without withdrawing land plots from land owners and land users.

6. Individuals and legal entities, including government agencies, branches and representative offices of legal entities, shall take measures to ensure the safety and security of heat supply networks, including those passing through their territory.

7. Disputes between the organizations that are in charge of heat supply networks, as well as individuals and legal entities (their branches and representative offices), shall be resolved in the manner established by the civil legislation of the Republic of Kazakhstan.

## **Chapter 2. Procedure for the establishment of protected zones of heating network facilities and special conditions for the use of land plots located within the borders of such zones**

### **Section 1. Procedure for the establishment of protected zones of heating network facilities**

8. The protected zones, the minimum allowable distances from heat supply networks to buildings and structures shall be established, land plots shall be allocated to ensure safety, create normal operating conditions for heat supply networks and prevent accidents.

9. For the period of construction and operation of heat supply networks, land plots shall be allocated in the manner established by the legislation in the field of land relations of the Republic of Kazakhstan.

10. The protected zones of heat supply networks shall be established as a plot of land along the route from the outer face of building structures in both directions to buildings, structures and engineering networks with a pipe diameter (hereinafter referred to as the  $D_y$ ):

1) above-ground routing:

$D_y < 200 \text{ mm}$  - 10 m;

$D_y$  from 200 to 500 mm - 20 m;

$D_y > 500 \text{ mm}$  - 25 m;

2) under-ground routing:

$D_y < 500 \text{ mm}$  - 5 m;

$D_y > 500 \text{ mm}$  - 8 m.

11. The distance from historical and cultural monuments to heat supply networks shall be at least 15 meters (hereinafter referred to as the  $m$ ) (for distribution networks shall be at least 5 m).

12. When choosing a heating supply network route, water networks with a diameter of 300 mm and less than residential and public buildings shall be allowed to cross the network provided that networks are installed in technical undergrounds, corridors and tunnels (at least 1.8 m high) with a drainage well at the lowest point at the building's exit.

13. Transit intersection of heat supply networks of any diameter in buildings of children's and medical institutions shall be prohibited.

14. The horizontal distances in the light from the building structures of heat supply networks or the shell of the insulation of pipelines with channelless laying to structures and engineering networks shall be determined according to Appendix 1 to these Rules.

15. Horizontal distances in the light from underground water heat supply networks of open heating systems and hot water networks to sources of possible pollution shall be determined according to Appendix 2 to these Rules.

16. Vertical distances in the light from the building structures of heat supply networks or the shell of the insulation of pipelines with channelless laying shall be determined according to Appendix 3 to these Rules.

17. Production of construction, installation, excavation, loading and unloading operations, pilot-scale work associated with the establishment of wells and pits, preparation of sites, parking lots of vehicles, location of markets, buildings, structures, storage of materials, construction of fences and embankments, disposal and discharge of corrosive substances and fuels and lubricants shall be prohibited within the protective zones of heat supply networks without the consent of the organization that are in charge of these networks.

18. No later than twelve (12) calendar days prior to the commencement of the work, individuals and legal entities doing work near the protected zones of heat supply networks that may cause damage, shall agree with the organization, responsible for the heat supply

networks, the conditions and procedure for works to ensure the safety of heat supply networks , and shall take the necessary measures at their own expense.

19. The refusal by the organization in charge of the heating network to issue a written consent to work in the security zones of the heating network shall be appealed in the manner prescribed by the legislation of the Republic of Kazakhstan.

## **Section 2. Procedure for the special conditions of the use of land plots located within the borders of such zones**

20. Upon detection of heat supply networks that are not specified in the documents for the production of these works, physical and legal persons carrying out excavation work shall immediately cease the work, take measures to ensure the safety of pipelines and shall report about this to the organization operating the heat supply networks and / or local executive bodies.

21. Individuals and legal entities performing work that necessitates the restructuring of heat supply networks or protecting them from damage, shall perform these works at their own expense in consultation with the organizations that manage the heat supply networks.

22. Approaches and passages to the heat supply networks shall be preserved when constructing collector-drainage canals, fences, structures and other works.

23. Planning of the surface of the earth on the route of heat supply networks shall exclude the ingress of surface water to the heat pipelines.

24. Heat pipes, fittings and compensators shall be covered with thermal insulation.

25. Pipelines and metal structures of heat supply networks shall not be applied without protective coatings against external corrosion.

26. Water discharging directly into the heating network chambers or onto the ground surfaces shall be prohibited.

27. During the underground installation, water shall be drained from the pipelines to waste wells installed near the main chamber, followed by water drift by gravity or mobile pumps into sewage systems.

28. It shall be allowed to provide for the diversion of water from the waste wells directly to natural water bodies and to the relief of the area, provided that these measures are coordinated in accordance with the Water Code of the Republic of Kazakhstan.

29. Reliable waterproofing of heat supply networks and their structures shall be provided when crossing heat supply networks with the irrigation canal systems.

30. When heat supply networks intersect existing water mains and sewage networks located above heating mains pipelines, as well as when crossing gas pipelines, it shall be envisaged to install encasement pipes on water mains, sewage and gas pipelines 2 m on either side of the intersection (in the light). A protective coating against corrosion shall be provided on the encasement pipes.

31. The organization which is in charge of the heat supply networks shall provide its employees with unhindered access to the heat network facilities located on the territory of other organizations to carry out repair and maintenance work.

32. Works, to prevent accidents or eliminate their consequences on the heat supply networks shall be carried out without the consent of the land user, but with his/her notification of the work being carried out.

33. After the implementation of these works, the organizations in charge of which the heat supply networks are located, shall bring the land plots into a state suitable for their use for the intended purpose.

34. Individuals and legal entities in the security zones of heat supply networks shall comply with the requirements of organizations that are in charge of heat supply networks, aimed at ensuring the safety of heat supply networks and preventing accidents. In the event of a threat to people's lives during the performance of work by other individuals and legal entities in the protection zones of these networks, the organizations that manage the heat supply networks shall suspend work until the threat to people's lives is eliminated.

35. When identifying infringements of these Rules, authorized officials of organizations, that are in charge of the heat supply networks, shall draw up a report of infringements with the attachment of materials confirming the infringements (photographs, explanatory, power line diagrams, permission to work in the protected zone and other available materials), and shall take measures in accordance with the legislation of the Republic of Kazakhstan..

Appendix 1  
to the Rules for the Establishment  
of Protected Zones of Heating  
Network Facilities and Special  
Conditions for the Use of Land  
Plots Located Within the Borders  
of Such Zones

**Horizontal distances in the light from the construction structures of heat supply networks or the shell of the insulation of pipelines for channelless laying to buildings and engineering networks**

Construction and engineering communications networks	The shortest distance in the light, meter
Underground routing of heat supply networks	
1	2
1. Foundations of constructions 1.1. When laying in canals and tunnels in non-subsurface soils (from the outer concrete wall of the channel, tunnel) with a pipe diameter, millimeter	
Dy < 500	2.0
Dy = 500 - 800	5.0
Dy = 900 and over	8.0

The same is in type I subsurface soils with:	
Dy< 500	5.0
Dy> 500	8.0
1.2. In channelless laying in non-subsurface soils (from the cover of the channelless laying) with a pipe diameter, mm	
Dy< 500	5.0
Dy> 500	7.0
The same is in type I subsurface soils with:	
Dy< 100	5.0
Dy> 100 to 500	7.0
Dy> 500	8.0
The same is in subsurface soils of type II with: the thickness of the layer of subsiding soil is from 5 to 12 m, with a conditional passage of pipes, mm:	
Dy< 100	5.0
Dy> 100 up to 300	7.5
Dy> 300	10.0
The thickness of the layer of subsiding soil is over 12 m with:	
Dy< 100	7.5
Dy> 100 up to 300	10.0
Dy> 300	15.0
2. Foundations of fences and pipelines	1.5
3. Axis of the nearest railway track, track gauge – 1520 mm	4.0 (but not less than the depth of the heat network trench to the bottom of the embankment)
The same, 750 mm of track gauge and tramway	2.8
4. The nearest railway road construction	3.0 (but no less than the depth of the heat network trench to the base of the outermost construction)
5. Axes of the nearest electrified railroad track	10.75
6. Railway switches and crosses	10.0
the same with heaving soils	20.0
7. Bridges, tunnels and other structures on the railways	30.0
8. Axes of the nearest tramway	2.8
9. Side stone of the street, the road (the edges of the roadway, the fortified strip of the curb)	1.5
10. The outer edge of the ditch or the base of the road embankment	1.0
11. Masts and pillars for outdoor lighting and communication network	1.0
12. Overcrossings, bridge pole basements	2.0
13. Railway contact line pole basements	3.0
The same for trams and trolley buses	1.0
14. Power and control cables with voltage up to 35 kV and oil-filled cables (over 110 kV)	2.0

15. Telephone conduit unit, armored communication cable in pipes and to radio broadcasting cables	1.0
16. Pole basements of overhead power line towers at voltage (at approach and crossing)	
1) up to 1 kV	1.0
2) over 1 up to 35 kV	2.0
3) over 35 kV	3.0
17. Water pipe-line	1.5
The same is in type I subsurface soils	2.5
18. Household and production sewage system	1.0 (with closed heating system)
19. Drainage and rainwater sewage system	1.0
20. Gas pipelines with pressure up to 0.6 MPa when laying heat supply networks in channels, tunnels, as well as non-duct laying with associated drainage	2.0
The same, more than 0.6 to 1.2 MPa	4.0
21. Gas pipelines with pressure up to 0.3 MPa with channelless laying of heat supply networks without associated drainage	1.0
The same, more than 0.3 to 0.6 MPa	1.5
The same, more than 0.6 to 1.2 MPa	2.0
22. Channels and tunnels for various purposes (including the channel of irrigation networks — aryks)	2.0
23. Structures and subway during lining with external insulating adhesive tape	5.0 (but not less than the depth of the heat network trench to the base of the structure)
The same without the surface waterproofing	8.0 (but not less than the depth of the heat network trench to the base of the structure)
24. Fencing of ground subway lines	5.0
Above-ground routing of heat supply networks	
25. The nearest railway subgrade construction	3.0
26. Rail axis from intermediate supports (at the intersection of railways)	"S", "SP", "Su" Dimensions pursuant to GOST (National Standard) 9238-83 and pursuant to GOST 9720-76
27. Axes of the nearest tramway	2.8
28. Onboard stone or to the outer edge of the highway cuvette	0.5
29. Overhead power line with the greatest deviation of the wires at voltage, kV:	
Up to 1	1.0
Over 1 to 20	3.0
35-110	4.0
220	5.0
500	6.5
30. Residential and public buildings for water heating networks and steam pipelines with the PRE pressure of 0.63 MPa, condensate heating networks with a pipe diameter, mm:	
Dy = 500 – 1400	25.0
Dy from 200 up to 500	20.0



Dy < 200	10.0
For hot water networks The same, for steam heat networks pressure	5.0
PRE from 1.0 to 2.5 MPa	30.0
The same, over 2.5 to 6.3 MPa	40.0

**Notes:**

1. When laying in common trenches of heating and other engineering networks (when they are being built simultaneously), it shall be allowed to reduce the distance from the heating networks to the water supply and sewage systems to 0.8 m with all the networks located at the same level or with a difference in laying levels of not more than 0.4 m;

2. For heat supply networks, laid below the foundations of buildings and structures, the difference in the elevation marks shall additionally be taken into account with consideration to the natural slope of the soil or measures shall be taken to strengthen the foundations;

3. In case of parallel laying of underground heat and other engineering networks at different depths, the distances given in the table shall be increased and no less than the difference in the networks laid shall be accepted. In the constrained conditions of installation and the impossibility of increasing the distance, measures shall be taken to protect the engineering networks from collapse during repair and construction of heat supply networks;

4. The distance from the pavilions of heat supply networks to residential buildings shall be taken at least 15 m to accommodate shut-off and control valves (in the absence of pumps therein);

5. In case of parallel laying of above-ground heat supply networks with overhead power lines with the voltage from 1 to 500 kV outside settlements, the distance from the outermost wire shall be no less than the height of the support.

Appendix 2  
to the Rules for the Establishment  
of Protected Zones of Heating  
Network Facilities and Special  
Conditions for the Use of Land  
Plots Located Within the Borders  
of Such Zones

**Horizontal distances in the light from underground water heat supply networks of open heating systems and hot water networks to the sources of possible pollution**

Sources of pollution	The shortest horizontal distance in the light, meter
1	2
1. Buildings and pipelines of household sewage:	
when laying heat supply networks in channels and tunnels	1.0
During channelless laying of heat supply networks	1.5
Dy < 200 mm, the same, Dy > 200 mm During channelless laying of heat supply networks	3.0

2. Cemeteries, landfills, irrigation fields	10.0
in the absence of groundwater in the presence of groundwater and in filtering soils with groundwater movement in the direction of heat supply networks	50.0
3. Cesspools and waste pits:	7.0
in the absence of groundwater in the presence of groundwater and in filtering soils with groundwater movement in the direction of heat supply networks	20.0

Note. If the sewage networks are located below the heat supply networks, when parallel distances are laid horizontally, no less than the difference in the level of the networks shall be taken, above the heat supply networks - the distances shown in the table shall be increased by the difference in the depth.

Appendix 3  
to the Rules for the Establishment  
of Protected Zones of Heating  
Network Facilities and Special  
Conditions for the Use of Land  
Plots Located Within the Borders  
of Such Zones

## Vertical distances in the light from the building structures of heat supply networks or shell insulation of pipelines for channelless laying

Structures and engineering networks	The shortest distance in the light, meter
Underground laying of heat supply networks	
1	2
1. Water supply, sewage, gas pipeline, wastewater disposal	0.2
2. Armored communication cables	0.5
3. Power and control cables up to 35 kV	0.5
4. Telephone conduit unit or to armored communication cable in pipes	0.15
5. Rail Soles of Industrial Enterprises	1.0
The same for rail network	2.0
The same for tram tracks	1.0
6. Top of the road pavement of the general network of I, II, III categories	1.0
7. The bottom of the ditch or other drainage facilities or to the base of the embankment of the railway subgrade (with the location of heat supply networks over these structures)	0.5
8. Metro facilities (with the location of heat supply networks over these facilities)	1.0
Overhead laying of thermal networks	
9. Railroad Heads	"S", "SP", "Su" Dimensions
10. Top of the roadway	5.0
11. Top of pedestrian roads	2.2
12. Parts of the tram's contact network	0.3
13. Parts of trolleybus contact network	0.2
14. Overhead power lines with the greatest sag of wires at voltage, kV:	

Up to 1	1.0
Over 1 to 20 inclusive	3.0
35-110	4.0
220	5.0
500	6.5

Notes:

1. The deepening of heat supply networks from the ground or road surface (except for roads I, II and III categories) shall be taken not less than:

- 1) to the top of the canals and tunnels – 0.5 m;
- 2) to the top of the chamber overlap – 0.3 m;
- 3) to the top of the casing without channel strip – 0.7 m.

In the impassable part, overlapping chambers and ventilation shafts for tunnels and channels may be protruding above the ground to a height of at least 0.4 m;

4) when inputting heat supply networks into the building, it shall be allowed to take indentations from the ground surface to the top of the channels or canals overlap - 0.3 m and to the top of the channel-free casing shell - 0.5 m;

5) in case of high groundwater levels, it shall be allowed to reduce the depth of canals and tunnels and place the floors above the ground surface to a height of at least 0.4 m, if this does not violate the conditions for the movement of vehicles;

2. In case of above-ground laying of heat supply networks on low supports in the light from the ground to the bottom of the thermal insulation of pipelines shall be at least (m):

- 1) with a width of a group of pipes up to 1.5 m – 0.35;
- 2) with a width of a group of pipes of more than 1.5 m – 0.5;

3. During the underground installation, the heat supply networks at the intersection with the power and control communication cables may be located above or below them;

4. With channelless laying, the clear distance from the water heating networks of the open heating system or hot water networks to sewer pipes located below or above the heating networks shall not be less than 0.4 m.