

Technical Regulations TR EEU 046/2018

In accordance with Article 52 of the Treaty on the Eurasian Economic Union dated 29 May 2014 and paragraph 29 of Annex No. 1 to the Rules of Procedure of the Eurasian Economic Commission, approved by Decision of the Supreme Council of the Eurasian Economic Union dated 23 December 2014 No. 98, the Council of the Eurasian Economic Commission **decided:**

1. To adopt the attached Technical Regulation of the Eurasian Economic Union "On the Safety of Natural Combustible Gas Prepared for Transportation and/or Use" (TR EAEU 046/2018).
2. To establish that the Technical Regulation of the Eurasian Economic Union "On the Safety of Natural Combustible Gas Prepared for Transportation and/or Use" (TR EAEU 046/2018) shall enter into force on 1 January 2022.
3. This Decision shall enter into force upon the expiry of 30 calendar days from the date of its official publication.

Members of the Council of the Eurasian Economic Commission:

From the Republic of Armenia	From the Republic of Belarus	From the Republic of Kazakhstan	From the Kyrgyz Republic	From the Russian Federation
M. Grigoryan	I. Petrishenko	A. Mamin	Zh. Razakov	A. Siluanov

ADOPTED

**by Decision of the Council
of the Eurasian Economic
Commission**

dated 14 September 2018 No. 74

TECHNICAL REGULATION

of the Eurasian Economic Union "On the Safety of Natural Combustible Gas Prepared for Transportation and (or) Use" (TR EAEU 046/2018)

I. Scope

1. This Technical Regulation applies to natural combustible gas prepared for transportation through main gas pipelines and placed on the market or in circulation on the customs territory of the Eurasian Economic Union (hereinafter referred to as the Union), industrial and domestic natural combustible gas, compressed natural combustible gas and liquefied natural combustible gas prepared for use (hereinafter referred to as products).

2. This Technical Regulation does not apply to products supplied under the state defence order and stored by organisations ensuring the preservation of the state material reserve, products used by the manufacturer exclusively for its own needs, products exported outside the customs territory of the Union, or products of foreign manufacturers transported through the customs territory of the Union to consumers in third countries.

For natural combustible gas prepared for transportation and manufactured by foreign manufacturers, transportation through the customs territory of the Union is permitted provided that the impact during transportation on products in circulation on the customs territory of the Union does not result in the non-compliance of the parameters of such products with the requirements of this Technical Regulation.

Note. Paragraph 2 as amended by Decision No. 38 of the Council of the

Eurasian Economic Commission dated 23.05.2025 (shall enter into force upon the expiry of 180 calendar days from the date of its official publication).

3. This Technical Regulation establishes product requirements for the purposes of protecting human life and health, property, the environment, the life and (or) health of animals and plants, preventing actions that mislead consumers (users), and ensuring energy efficiency and resource conservation.

II. Main Concepts

4. For the purposes of applying this Technical Regulation, the concepts established by the Protocol on Technical Regulation within the Eurasian Economic Union (Annex No. 9 to the Treaty on the Eurasian Economic Union dated 29 May 2014), the standard conformity assessment schemes approved by Decision No. 44 of the Council of the Eurasian Economic Commission dated 18 April 2018 (hereinafter referred to as the Standard Schemes), and the following concepts shall be used:

"natural combustible gas" (NCG) means a gaseous mixture extracted from all types of hydrocarbon raw material fields (deposits), consisting predominantly of methane and containing heavier hydrocarbons, nitrogen, carbon dioxide, water vapour, sulfur-containing compounds, inert gases, and trace amounts of other components;

"compressed natural combustible gas" means natural combustible gas that has undergone special preparation for use as fuel, including for internal combustion engines;

"natural combustible gas prepared for transportation" means natural combustible gas that has undergone technological operations to ensure its safe transportation through main gas pipelines;

"industrial and domestic natural combustible gas" means natural combustible gas prepared for use as raw material and (or) fuel for industrial and domestic purposes;

"liquefied natural combustible gas" (LNG) means natural combustible gas brought to a liquid state for the purposes of its transportation, storage and use as fuel;

"circulation of products on the market" means the stages of movement of products from the manufacturer to the consumer that the products undergo beginning with their placing on the market;

"batch of products" means the quantity of products of the same intended purpose and grade (if available), accompanied by one Product Quality Passport;

"Product Quality Passport" means a document containing information on products being placed on the market and in circulation and establishing the conformity of the values of product parameters obtained as a result of tests (measurements) with the requirements of this Technical Regulation and the document in accordance with which the products were manufactured (if available);

"in-stream measuring instrument" means a measuring instrument that meets the requirements established by the legislation of the Member States of the Union in the field of ensuring the uniformity of measurements and is intended for continuously measuring, automatically, the parameters of products moving in a stream;

"consumer" means a legal entity or an individual intending to purchase or purchasing products exclusively for their own needs.

Note. Paragraph 4 as amended by Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (shall enter into force upon the expiry of 180 calendar days from the date of its official

publication).

III. Rules for the Circulation of Products on the Union Market

5. Products shall be placed on the market if they comply with the requirements of this Technical Regulation and other Technical Regulations of the Union applicable to them, provided that they have undergone conformity assessment in accordance with Section VI of this Technical Regulation and other Technical Regulations of the Union applicable to them.

5¹. With respect to products manufactured and having undergone conformity assessment procedures in accordance with Section VI of this Technical Regulation in one part of the customs territory of the Union and supplied to another part of the customs territory of the Union through the territories of states that are not members of the Union, no additional conformity assessment shall be carried out before their placing on the market.

Note. Chapter III was supplemented by Paragraph 5¹ in accordance with Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (shall enter into force upon the expiry of 180 calendar days from the date of its official publication).

6. At the request of the consumer, the manufacturer (the person authorised by the manufacturer) or the seller (importer) shall provide documents confirming the conformity of the products with the requirements of this Technical Regulation (copies of the declaration of conformity of the products and (or) the Product Quality Passport).

Note. Paragraph 6 as amended by Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (shall enter into force upon the expiry of 180 calendar days from the date of its official publication).

7. The circulation of products not marked with the single mark of product circulation on the Union market is not permitted.

Note. Paragraph 7 as amended by Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (shall enter into force upon the expiry of 180 calendar days from the date of its official publication).

IV. Product safety requirements

8. Natural combustible gas prepared for transportation shall comply with the requirements set out in Annex No. 1.

9. Industrial and domestic natural combustible gas shall comply with the requirements set out in Annex No. 2.

10. Compressed natural combustible gas shall comply with the requirements set out in Annex No. 3.

11. Liquefied natural combustible gas shall comply with the requirements set out in Annex No. 4.

12. Each batch of products shall be accompanied by a Product Quality Passport containing the following information:

a) name, grade (if available) and designation of the products (if available);

6) name of the organisation issuing the passport and carrying out either the manufacture, transportation, storage or sale of the products, location (address of the legal entity) – for a legal entity, or surname, first name and patronymic (if available), place of residence – for an individual registered as an individual entrepreneur;

в) manufacturer's trademark (if available) (entered in the passport);

г) name of the person authorised by the manufacturer or importer, its location (address of the legal entity) – for a legal entity, or surname, first name and patronymic (if available), place of residence – for an individual registered as an individual entrepreneur;

д) designation and name of the document in accordance with which the products were manufactured;

е) standard values and results of laboratory tests (measurements) or measurements obtained using in-stream measuring instruments, confirming the products' compliance with the requirements of this Technical Regulation;

ж) batch number (if available), delivery period (date);

з) single mark of product circulation on the Union market (entered in the passport);

и) number and date of issue of the passport;

к) signature and printed name of the person who issued the passport.

Note. Clause 12 as amended by Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).
12¹. The Product Quality Passport for natural combustible gas prepared for transportation, industrial and domestic natural combustible gas, and compressed natural combustible gas of serial production shall be issued for each periodically recurring batch at least 1 time per month.

In the territory of the Republic of Kazakhstan, the Product Quality Passport for industrial and domestic natural combustible gas placed on the market in accordance with Clause 17¹ of this Technical Regulation shall be issued for each batch at least 1 time every 6 months.

Note. Chapter IV was supplemented with Clause 12¹ pursuant to Decision

No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

12². Tests (measurements) during the acceptance (transfer) of a batch of products, as well as determination of their frequency, shall be carried out in accordance with the standards specified in Clause 15 of this Technical Regulation.

Note. Chapter IV was supplemented with Clause 12² pursuant to Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

12³. The results of the tests (measurements) specified in the Product Quality Passport for natural combustible gas supplied for compression and complying with the requirements of this Technical Regulation may be entered in the Product Quality Passport for compressed natural combustible gas.

Note. Chapter IV was supplemented with Clause 12³ pursuant to Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

12⁴. The results of tests of the initial liquefied natural combustible gas complying with the requirements of this Technical Regulation may be entered in the Product Quality Passport for industrial and domestic natural combustible gas obtained through regasification of liquefied natural combustible gas.

Note. Chapter IV was supplemented with Clause 12⁴ pursuant to Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

13. The accompanying documentation for a batch of products shall be drawn up in Russian and, where the legislation of the Member States of the Union (hereinafter referred to as the Member States) contains corresponding requirements, in the state language (state languages) of the Member State in whose territory the batch will be in circulation.

Note. Clause 13 as amended by Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

V. Ensuring product compliance with the requirements of the Technical Regulation

14. Product safety is ensured by compliance with the requirements established by this Technical Regulation.

15. The methods and frequency of tests (measurements), and the product acceptance (transfer) rules required to fulfil the requirements of this Technical Regulation and carry out conformity assessment of products, shall be established in the standards included in the list of international and regional (interstate) standards, and, in their absence, in national (state) standards containing rules and methods for research (tests) and measurements, including sampling rules, required for the application and fulfilment of the requirements of this Technical Regulation and the conformity assessment of technical regulation objects.

Note. Clause 15 as amended by Decision No. 38 of the Council of the Eurasian Economic Commission dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

VI. Conformity Assessment of Products for Compliance with the Technical Regulation Requirements

16. Before placing products on the market, conformity assessment of the products for compliance with the requirements of this Technical Regulation shall be carried out in the form of conformity confirmation (declaration of conformity). The declaration of conformity shall be issued by the applicant. The applicant may be a legal entity or an individual registered as an individual entrepreneur in accordance with the legislation of a Member State in its territory, who is the manufacturer (person authorised by the manufacturer) or the seller (importer).

Note. Paragraph 16 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

17. The declaration of conformity of products for compliance with the requirements of this Technical Regulation shall be carried out in accordance with the Standard Schemes, taking into account the specific features established by this Technical Regulation:

a) for natural combustible gas prepared for transportation, industrial and domestic natural combustible gas and compressed natural combustible gas placed on the market serially — under Scheme 1d, or 3d, or 6d;

б) for industrial and domestic natural combustible gas and compressed natural combustible gas placed on the Union market in batches — under Scheme 4d;

в) for liquefied natural combustible gas placed on the market serially — under Scheme 3d or 6d;

г) for natural combustible gas prepared for transportation and liquefied natural combustible gas placed on the Union market in batches — under Scheme 2d.

Note. Paragraph 17 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).
17¹. For industrial and domestic natural combustible gas produced from natural combustible gas transported through main gas pipelines, conformity assessment may be carried out before placing on the market in the form of testing, with a Product Quality Passport being issued.

Note. Chapter VI was supplemented by Paragraph 17¹ in accordance with Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

17². Conformity assessment of industrial and domestic natural combustible gas produced from natural combustible gas transported through main gas pipelines shall be carried out by the applicant (a legal entity or an individual registered as an individual entrepreneur) registered in the territory of a Member State in accordance with its legislation and being the seller of industrial and domestic natural combustible gas produced from natural combustible gas transported through main gas pipelines.

Note. Chapter VI was supplemented by Paragraph 17² in accordance with Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

17³. Testing of industrial and domestic natural combustible gas produced from natural combustible gas transported through main gas pipelines shall be carried out for compliance with the requirements stipulated in Annex No. 2 to this Technical Regulation and shall include:

a) sampling;

6) testing (measurement) of samples in the applicant's own testing laboratory, or using the applicant's or the organisation transporting

products through main gas pipelines' in-stream measuring instruments, or in an accredited testing laboratory (centre) included in the Unified Register of Conformity Assessment Bodies of the Union;

в) entering the results of the tests (measurements) and the conformity conclusion for industrial and domestic natural combustible gas produced from natural combustible gas transported through main gas pipelines regarding its compliance with the requirements of this Technical Regulation into the Product Quality Passport.

Note. Chapter VI was supplemented by Paragraph 17³ in accordance with Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

18. When carrying out conformity confirmation of products for compliance with the requirements of this Technical Regulation, the applicant shall compile, for registration of the declaration of conformity, a set of documents and information that includes:

а) the declaration of conformity of products for compliance with the requirements of this Technical Regulation, drawn up using the uniform form approved by the Eurasian Economic Commission;

б) test (measurement) reports confirming the products' compliance with the requirements of this Technical Regulation;

в) a copy of the certificate for the quality management system (when declaring conformity under Scheme 6d);

г) information on the registration or record (individual, identification) number of the applicant assigned upon the State Registration of a legal entity or an individual as an individual entrepreneur in accordance with the legislation of a Member State;

д) the contract for the supply of a batch of products and shipping documents identifying the batch of products, including its size (if available) (when declaring conformity under Schemes 2d and 4d).

Note. Paragraph 18 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

19. The declaration of conformity shall be registered in accordance with the procedure approved by the Eurasian Economic Commission.

The validity period of the declaration of conformity shall be:

when declaring conformity under Schemes 1d and 3d — not more than 3 years;

when declaring conformity under Schemes 2d and 4d — no period shall be established;

when declaring conformity under Scheme 6d — not more than 5 years.

Note. Paragraph 19 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

20. The set of documents and information stipulated in Paragraph 18 of this Technical Regulation shall be retained:

by the manufacturer or the person authorised by the manufacturer — for at least 10 years from the date on which the validity period of the declaration of conformity expires;

by the seller or importer — for at least 10 years from the date of sale of the products.

The set of documents and information shall be submitted to the state control (supervision) bodies of the Member States upon their request.

The set of documents and information may be retained electronically in accordance with the legislation of the Member States.

Note. Paragraph 20 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

21. Natural combustible gas prepared for transportation that is in circulation shall, when transferred between business entities, undergo conformity assessment in the form of testing, with a Product Quality Passport being issued.

Note. Paragraph 21 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

22. The testing specified in Paragraph 21 of this Technical Regulation shall be carried out for compliance with the requirements stipulated in Annex No. 1 to this Technical Regulation by organisations carrying out the storage and/or transportation of products through main gas pipelines.

Note. Paragraph 22 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

23. The procedure for carrying out the testing stipulated in Paragraph 21 of this Technical Regulation shall include:

a) sampling;

6) testing (measurement) of samples in the organisation's own testing laboratory, or using the in-stream measuring instruments of the organisation carrying out the storage and/or transportation of products through main gas pipelines, or in an accredited testing laboratory (centre) included in the Unified Register of Conformity Assessment Bodies of the Union;

в) entering the test (measurement) results and the conformity conclusion that the natural combustible gas prepared for transportation continues to comply with the requirements of this Technical Regulation into the Product Quality Passport.

Note. Paragraph 23 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

VII. Marking with the Single Mark of Product Circulation on the Union Market

24. Products that comply with the requirements of this Technical Regulation and have undergone conformity assessment procedures in the form of declaration of conformity or testing with a Product Quality Passport being issued in accordance with Section VI of this Technical Regulation shall bear the marking with the single mark of product circulation on the Union market.

Note. Paragraph 24 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

25. Repealed by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

26. The graphic representation of the single mark of product circulation on the Union market shall be affixed to the accompanying documentation (the declaration of conformity of the products and/or the Product Quality Passport).

Note. Paragraph 26 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

VIII. Safeguard Clause

27. Member States shall take all measures to restrict or prohibit the placing on the market of products that do not comply with the requirements of this Technical Regulation.

The competent authority of a Member State that has adopted a decision to restrict or prohibit the placing of products on the market shall, no later than 1 month, notify the competent authorities of the other Member States of the decision adopted, providing justification for the need to take such measures.

28. The use of natural combustible gas prepared for transportation that complies with the requirements of this Technical Regulation and has undergone conformity assessment procedures in accordance with Section VI of this Technical Regulation is permitted for the organization's own needs by organizations engaged in transportation and/or storage, as industrial fuel.

Note. Chapter VIII was supplemented by Paragraph 28 in accordance with Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

29. The supply of natural combustible gas prepared for transportation that complies with the requirements of this Technical Regulation and has undergone conformity assessment procedures in accordance with Section VI of this Technical Regulation directly from the main gas pipeline to the consumer as raw material and/or industrial fuel is permitted.

Note. Chapter VIII was supplemented by Paragraph 29 in accordance with Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

30. The retail sale of regasified liquefied natural combustible gas for internal combustion engines (Grade B) that complies with the requirements of this Technical Regulation and has undergone conformity assessment procedures in accordance with Section VI of this Technical Regulation as compressed natural combustible gas is permitted.

Note. Chapter VIII was supplemented by Paragraph 30 in accordance with Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

31. The supply of regasified liquefied natural gas for power-generating installations (Grade C) that complies with the requirements of this Technical Regulation and has undergone conformity assessment procedures in accordance with Section VI of this Technical Regulation as raw material and/or industrial fuel is permitted.

Note. Chapter VIII was supplemented by Paragraph 31 in accordance with Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon the expiry of 180 calendar days from the date of its official publication).

ANNEX No. 1
to the Technical Regulation
of the Eurasian Economic
Union "On the Safety of Natural
Combustible Gas
Prepared for
Transportation and/or
Use" (TR EAEU 046/2018)

REQUIREMENTS

for natural combustible gas prepared for transportation via main gas pipelines

Footnote. Appendix 1 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 of 23.05.2025 (enters into force

upon expiry of 180 calendar days from the date of its official publication).

Item No.	Parameter	Unit of measurement	Standard value	
			minimum	maximum
1	Mole fraction of oxygen	%	-	0,020
2	Mole fraction of carbon dioxide	%	-	2,5
3	Mass concentration of hydrogen sulfide	g/m ³	-	0,007
4	Mass concentration of mercaptan sulfur	g/m ³	-	0,016
5	Mass concentration of total sulfur	g/m ³	-	0,030
6	Lower volumetric heat of combustion	MJ/m ³ (kcal/m ³)	31,80 (7600)	-
7	Water dew-point temperature: for temperate climate: winter period summer period for cold climate: winter period summer period	°C	-	-10,0 (-5,0) -10,0 (-3,0) -20,0 -14,0 (-10,0)
8	Hydrocarbon dew-point temperature: for temperate climate: winter period summer period for cold climate: winter period summer period	°C	-	-2,0 (0,0) -2,0 (0,0) -10,0 -5,0

9	Mass concentration of mechanical impurities	g/m ³	-	0,001
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Notes:

1. The summer period is from 1 May to 30 September. The winter period is from 1 October to 30 April. The periods may be specified by agreement between the Member States of the Eurasian Economic Union.
2. The standard values of parameters 3 – 6 and 9 are established at a standard pressure of 101,325 kPa and a standard temperature of 20,0 °C. The standard combustion temperature for calculating the volumetric heat of combustion is 25,0 °C.
3. In the territory of the Republic of Kazakhstan, until 1 January 2030, placing on the market of natural combustible gas prepared for transportation is permitted with values of parameters 3 and 4 not exceeding the following values, in accordance with the requirements established in the territory of the Republic of Kazakhstan:
 - mass concentration of hydrogen sulfide, g/m³, not more than – 0,020;
 - mass concentration of mercaptan sulfur, g/m³, not more than – 0,036.
4. Parameter 5 shall be put into effect in the territory of the Republic of Kazakhstan from 1 January 2030.
5. When calculating parameter 6, 1 calorie is taken as equal to 4,1868 J.
6. The standard values of parameter 7 are established at an absolute pressure of 3,92 MPa.
7. Subject to agreement with the receiving party and provided that parameter 7 is mandatorily limited to not higher than minus 20 °C, placing on the market and circulation in the territory of the Russian Federation of natural combustible gas with a mole fraction of carbon dioxide of up to 3,2 % are permitted until 1 January 2030.
8. For parameters 7 and 8, the standard values given in brackets are applied by agreement between the supplying and receiving parties for fields and underground storage facilities put into operation up to 2000 (in the Republic of Kazakhstan – up to 2005) inclusive.
 - For fields of the Russian Federation located in areas with a temperate climate and put into operation before 2000, the standard value of parameters 7 and 8 may be established by agreement between the supplying and receiving parties, but not higher than the gas temperature at operating pressure at the sampling point,

provided that the gas is circulated exclusively in the territory of the Russian Federation.

9. The standard values of parameter 8 are established at operating pressure at the sampling point.

10. For natural combustible gas in which the mass concentration of hydrocarbons C_{5+} does not exceed $1,0 \text{ g/m}^3$, determination of parameter 8 is not performed.

The mass concentration of hydrocarbons C_{5+} , g/m^3 , is calculated on the basis of the measured values of the mole fractions of the components of natural combustible gas using the following formula:

$$C_{5+} = \frac{10}{24,05} \cdot \sum_{i=1}^n (M_i \cdot X_i)$$

where:

10 – conversion factor from percent to fractions and from dm^3 to m^3 , $\text{dm}^3/(\text{m}^3 \cdot \%)$;

24,05 – volume of 1 mole of natural combustible gas (assumed to be ideal) under standard conditions ($20,0^\circ\text{C}$ and $101,325 \text{ kPa}$), dm^3/mol ;

M_i

M_i

– molar mass of the i -th component of natural combustible gas, g/mol ;

X_i

X_i

– mole fraction of the i -th component in natural combustible gas, %;

i – summation index of the components of natural combustible gas used to calculate the mass concentration of hydrocarbons C_{5+}

C_{5+}

;

n – number of components of natural combustible gas used to calculate the mass concentration of hydrocarbons C_{5+}

C_{5+}

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Where the hydrocarbon components of natural combustible gas are measured up to the C_{6+} pseudo-component, the calculation of the mass concentration of hydrocarbons C_{5+} uses the mole fractions of pentanes and of the C_{6+} pseudo-component.

APPENDIX No. 2
to the Technical Regulation
of the Eurasian Economic
Union "On the Safety of Natural
Combustible Gas
Prepared for
Transportation and (or)
Use" (TR EAEU 046/2018)

REQUIREMENTS

for industrial and domestic natural combustible gas

Footnote. Annex 2 as amended by Decision of the Council of the Eurasian Economic Commission No. 38 of 23.05.2025 (enters into force upon expiry of 180 calendar days from the date of its official publication).

Item No.	Parameter	Unit of measurement	Limit	
			minimum	maximum
1	Mole fraction of oxygen	%	-	0,050
2	Mole fraction of carbon dioxide	%	-	2,5
3	Mass concentration of hydrogen sulfide	g/m ³	-	0,020
4	Mass concentration of mercaptan sulfur	g/m ³	-	0,036
5	Lower volumetric heat of combustion	MJ/m ³ (kcal/m ³)	31,80 (7600)	-
6	Higher Wobbe number	MJ/m ³ (kcal/m ³)	41,20 (9840)	54,50 (13020)
7	Water dew-point temperature	°C	below the gas temperature at the sampling point	
8	Hydrocarbon dew-point temperature	°C	below the gas temperature at the sampling point	
9	Mass concentration of mechanical impurities	g/m ³	-	0,001
10	Odour intensity	point	3	-

Notes:	1. The limits for parameters 3 – 6 and 9 are established at a standard pressure of 101,325 kPa and a standard temperature of 20,0 °C. The standard combustion temperature for calculating the volumetric heat of combustion is 25,0 °C.
	2. When calculating parameters 5 and 6, 1 calorie is taken as equal to 4,1868 J.
	3. Parameters 5 and 6 apply only to natural combustible gas used as fuel.
	4. The limits for parameters 7 and 8 are established at the pressure at the sampling point.

5. For natural combustible gas in which the mass concentration of C_{5+} hydrocarbons does not exceed $1,0 \text{ g/m}^3$, parameter 8 is not determined.

The mass concentration of C_{5+} hydrocarbons, g/m^3 , is calculated

on the basis of the measured mole fractions of the components of natural combustible gas using the following formula:

$$C_{5+} = \frac{10}{24,05} \cdot \sum_{i=1}^n (M_i \cdot X_i)$$

where:

10 – coefficient for converting percent to fractions and dm^3 to m^3 , $\text{dm}^3/(\text{m}^3 \cdot \%)$;

24,05 – volume of 1 mole of natural combustible gas (assumed to be ideal) under standard conditions ($20,0^\circ\text{C}$ and $101,325 \text{ kPa}$), dm^3/mol ;

M_i

M_i

– molar mass of the i -th component of natural combustible gas, g/mol ;

X_i

X_i

– mole fraction of the i -th component in natural combustible gas, %;

i – summation index of the components of natural combustible gas used to calculate the mass concentration of C_{5+}

C_{5+}

hydrocarbons;

n – number of components of natural combustible gas used to calculate the mass concentration of C_{5+} hydrocarbons.

Where the hydrocarbon components of natural combustible gas are measured up to the C_{6+} pseudo-component, the mass concentration of C_{5+} hydrocarbons is calculated using the mole fractions of pentanes

and of the C_{6+} pseudo-component.

	6. The limit for parameter 10 is established for an air-gas mixture in which the volume fraction of natural combustible gas is 1 %. Parameter 10 applies only to domestic natural combustible gas (including gas obtained by regasification of LNG). For industrial natural combustible gas (including gas obtained by regasification of LNG), the need for its odorization and for a limit on parameter 10 is determined by agreement with the receiving party. By agreement with the consumer, and provided that the specified value of parameter 7 is always ensured, natural combustible gas with a mole fraction of carbon dioxide of up to 4 % may be supplied through gas pipelines leading exclusively to that consumer.
	7. For industrial and domestic natural combustible gas obtained by regasification of LNG, only parameters 4 and 10 (if the gas is odorized) are subject to determination. The results of tests of the source LNG meeting the requirements of Annex No. 4 to the Technical Regulation of the Eurasian Economic Union "On the Safety of Natural Combustible Gas Prepared for Transportation and (or) Use" (TR EAEU 046/2018) may be entered in the Product Quality Passport for industrial and domestic natural combustible gas.

ANNEX No. 3
to the Technical Regulation
of the Eurasian Economic
Union "On the Safety of Natural
Combustible Gas
Prepared for
Transportation and (or)
Use" (TR EAEU 046/2018)

REQUIREMENTS

for compressed natural combustible gas

Footnote. Annex 3 as amended by Decision of the Council of the Eurasian Economic Commission of 23.05.2025 No. 38 (enters into force upon expiry of 180 calendar days from the date of its official publication).

Item No.	Parameter	Unit of measurement	Value	
			minimum	maximum
1	Lower volumetric heat of combustion	MJ/m ³	31,80	-
2	Relative density to air	-	0,55	0,70
3	Calculated methane number	-	70	-
4	Mass concentration of hydrogen sulfide	g/m ³	-	0,02
5	Mass concentration of mercaptan sulfur	g/m ³	-	0,036

6	Mole fraction of non-combustible components (total)	%	-	7,0
7	Mole fraction of oxygen	%	-	1,0
8	Mass concentration of water vapour	g/m ³	-	0,009
9	Mass concentration of mechanical impurities	g/m ³	-	0,001

Notes:	1. The values of parameters 1, 4, 5, 8 and 9 are specified at a standard pressure of 101,325 kPa and a standard temperature of 20,0 °C. The standard combustion temperature for the calculation of the volumetric heat of combustion is 25,0 °C.
	2. For compressed natural combustible gas obtained from LNG for internal combustion engines (Grade B), parameters 8 and 9 are not determined.

	3. The Product Quality Passport of compressed natural combustible gas may include, for parameters 1 – 7 and 9, the results of tests (measurements) given in the Product Quality Passport of the natural combustible gas supplied for compression that complies with the requirements of Annex No. 1 or Annex No. 2 to the Technical Regulation of the Eurasian Economic Union "On the Safety of Natural Combustible Gas Prepared for Transportation and (or) Use" (TR EAEU 046/2018).
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ANNEX No. 4
to the Technical Regulation
of the Eurasian Economic
Union "On the Safety of
Natural Combustible Gas
Prepared for
Transportation and (or)
Use" (TR EAEU 046/2018)

REQUIREMENTS

for liquefied natural combustible gas

Footnote. Appendix 4 — as amended by Decision of the Council of the Eurasian Economic Commission No. 38 dated 23.05.2025 (enters into force upon expiry of 180 calendar days from the date of its official publication).

No.	Product parameter	Unit of measurement	Standard					
			LNG for aviation gas turbine engines (Grade A)		LNG for internal combustion engines (Grade B)*		LNG for power-generating installations (Grade C)**	
			min.	max.	min.	max.	min.	max.
1	Mole fraction of methane	%	99,0	-	80,0	-	75,0	-
2	Higher Wobbe number	МДж/м ³	47,2	49,2	-		41,2	54,5
3	Lower volumetric heat of combustion	МДж/м ³	-		31,8	-	31,8	-
4	Mole fraction of nitrogen	%	-		-	5,0	-	5,0
5	Mole fraction of carbon dioxide	%	-	0,005	-	0,015	-	0,030
6	Mole fraction of oxygen	%	-	0,020	-	0,020	-	0,020
7	Mass concentration of hydrogen sulfide	г/м ³	-	0,020	-	0,020	-	0,020

8	Mass concentration of mercaptan sulfur	г/м ³	–	0,036	–	0,036	–	0,036
9	Calculated methane number	–	–		70	–	–	

* Including use as fuel for internal combustion engines after regasification and compression.

** Including use as fuel for industrial purposes and as a feedstock for the production of gas for domestic use after regasification.

Note.	The standards for parameters 2, 3, 7 and 8 are established at a standard pressure of 101,325 кПа and a standard temperature of 20,0 °C. The standard combustion temperature used in calculating the volumetric heat of combustion is 25,0 °C."
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