Government of Georgia

Resolution №383

July 27, 2018

St. Tbilisi

Technical regulations - on the approval of atmospheric air quality standards

Article 1

Pursuant to Article 18, Paragraph 2 and Article 19 of the Law of Georgia on Atmospheric Air Protection, the attached technical regulations - atmospheric air quality standards - shall be approved.

Article 2

The decree will come into force on August 1, 2018.

Prime Minister **Mamuka Bakhtadze**

Technical regulations - atmospheric air quality standards

Article 1. Subject of regulation of technical regulations

Technical Regulations - **Ambient Air Quality Standards** (hereinafter - the Technical Regulation) determines the ambient air quality standards for the whole area .

Article 2. Purpose and objectives of the technical regulations

1. The purpose of the technical regulation is to ensure the improvement of the quality of the atmospheric air and to maintain the high quality of the air in relation to the harmful substances defined by this technical regulation .

2. The tasks of the technical regulation are :

a) in the ambient air of harmful substances in the concentration limit values (as well as the types and list) are identified , the protection of the human health and the natural environment in a negative impact to prevent or / and reduction ;

b) the whole territory of the ambient air quality on human health and the natural environment in a safe condition to achieve , maintain and improve the air quality standard setting .

Article 3. Terms definition

1. The terms used in this Technical Regulation have the following meaning :

a) **level** - in the ambient air of harmful substance concentration or its precipitation on the surface of , a given period ;

b) **rate** - any method , which is used for level measurement , calculation and forecasting ;

c) **the maximum value** - human health and the natural environment of the harmful influence to prevent or reduce the purpose of scientific research data based on the determined level , which is reached should be a given period of time and then not to exceed the already achieved level ;

d) **the assessment of the upper limit** - a level , which is below the ambient air quality assessment can be used for stationary measurements and modeling techniques and / or indicative measurement mechanisms of the combination ;

e) **the assessment of the lower limit** - a level , which is below the ambient air quality assessment may be used only for modeling and objective assessment methods ;

f) **the tolerance margin** - the marginal importance percent , which indicated a possible excessive for this technical regulation of the conditions under ;

g) **the alarm limit** - limit , which is beyond the public health immediate negative impact of the risk under the stand and immediately needs to take action to receive ;

h) **critical level** - scientific research data based on the set level , the excess can be a direct negative impact on some of such receptors , such as trees , other plants or natural ecosystems , but not people ;

i) **Target value** - human health and the natural environment of the harmful influence to prevent or reduce the prescribed level of a given period , the level of achievement of the possibility of the case ;

j) **the long-term goal** - the level , which is reached should be the long -term human health and environmental protection to ensure that , except in those cases , when its achievement can not be rational measures to be taken as a result ;

K) **PM $_{10}$** - solid particles with aerodynamic diameter - 10 micrometers or less ;

L) **PM $_{2.5}$** - solid particles with aerodynamic diameter - 2.5 micrometers or less ;

M) **solid particles** - PM $_{2.5}$ and / or PM $_{10}$;

n) **nitrogen oxides (-NOx)** - air volume billionth parts depicted nitrogen monoksidisa and nitrogen dioxide molar shares sum , expressed in nitrogen dioxide relative to the weight of the units (mg / m ^{3});

o) **Polycyclic aromatic hydrocarbons (Pan)** - organic compounds , which are composed of two or more of the benzene ring it ;
p) **harmful substances** - these one - of the substance , which extends to the technical regulations of the action :
p . A) sulfur dioxide ;
p . B) nitrogen dioxide ;
p . C) nitrogen oxides ;
p . D) solid particles ;
p . E) bullet ;
p . F) benzene ;
p . G) carbon monoxide ;
p . H) ozone ;
p . I) arsenic ;
p . J) cadmium ;
p . K) mercury ;
p . L) Nickel ;
p . N) benzo (a) p or other pan - PCs ;
p . N) manganese dioxide ;
d) **averaging period** - the time 's passage , the time of the harmful substances in the level of measurement of the data gasashualoeba is carried out ;
s) **AOT40** - plants ozone common impact indicator , which is expressed as (g / m ^{3}) * h units . AOT40 of 80 mg / m ^{3} - the high and 80 micrograms / m ^{3} Hourly concentrations of indicators of the difference of the sum , the calculation for used Only 1 May to 31 July, during the period of 08: 00-20: 00 Hourly interval of daily measurement results . The name "AOT40" of 40 billion shares (ppb), which is 80 mg / m ^{3} - the identical value .
2. technical regulations used in other terms a " atmospheric air protection for user " of the law and of the law of value .

Article 4. Marginal value of the concentration of some harmful substances in the atmospheric air and the tolerance limit

1 . ambient air in some of the harmful substances in the marginal value , which determines the amount of time the average of the ambient air of harmful substances in the concentration of maximum importance for human health safety protection , defined in Annex №1- for .
2. ambient air in some of the harmful substance tolerance limit is the limit of a percent , which Annex №1- of the value may be excessive for the Georgian legislation the conditions in accordance with , in the case , if it is impossible to limit the importance of protection .
3. Nitrogen dioxide (the NO_2), the solid particles ($AM_{2,5}$) and benzene (C_6H_6) tolerance limit of 2018 on 1 January every 12 months after the 2025 on 1 January reduced equally , 0% - up .
4. Appendix №1- for specified limit values must be checked at least 5 years once .

Article 5. Limits for assessing the level of some harmful substances in the atmospheric air

of the ambient air quality determination is carried out in the ambient air of harmful substances in the levels of assessment thresholds based on , which is defined in Annex №2- for .

Article 6. The ambient air in some of the harmful substances in the concentration of the target value

1. Some of the harmful substance , the level of the ambient air exceeds the technical regulations appendix №1- for the marginal importance , but the appropriate measures to make the result available to the importance of better quality to achieve a given period , determined by the target value .
2. ambient air solid particle content ($AM_{2,5}$) of the target value is defined in Annex №3- for .

Article 7. uproar and private limits

1. sulfur dioxide , nitrogen dioxide and ground-level ozone concentrations increase instant impact from the protection of the purpose , these harmful substances in Annex №4- for defined alarm thresholds .
2. Ground-level ozone in the Annex №4- for well established private margin , which is in excess of the need to spread information about the ozone instant exposure to the risk of the existence of the user .

Article 8. The vegetation cover and other ecosystem protection

1. vegetation cover and other ecosystems of ambient air pollution caused by the negative impact to prevent or reduce the order , annex №5- for established ambient air sulfur dioxide and nitrogen oxides critical levels and its assessment thresholds , which are based on the need to evaluate these harmful substances Level .
2. Ground-level ozone exposure of plant cover to protect the Annex №6- for defined atmospheric air to ground-level ozone levels of marginal importance and necessity case , the long-term goal .

Article 9. The ambient air quality of information on availability

1. Population , as well as interested organizations (including the , environmental organizations , vulnerable population interests expressive organizations , health professionals relevant agencies and others .) Ambient air quality on a timely and adequately to be informed . The information should be available to anyone , Easily accessible media , including the , internet or telecommunications other appropriate means .

2. population available to be ambient air quality on the annual report .
3. population on a regular basis should be available to the technical regulations of the harmful substances in the ambient air concentrations of the updated information .
4. ambient air of harmful substances in concentrations presented should be in the technical regulations appendix defined averaging periods , respectively , the averaged values of the form .
5. The ambient air of harmful substances in concentrations of information , as well as ambient air quality on the annual report should include data on the limit values , target values , long-term goals , alarm thresholds and notification limits in excess of , the relevant averaging periods .These data , in the case of an annual report , should be presented in summary form .
6. The ambient air of harmful substances in the concentrations of the information with the need to be accompanied by a concentration of air quality standard to compare the short rate and appropriate information about the health effects of .
7. sulfur dioxide , nitrogen dioxide , solid particles (AM $_{10}$ anyway), carbon monoksidisa and ozone in ambient air concentrations of the information to be updated , of the small , daily , and there , where it is practically possible - hour . Atmospheric lead and benzene air concentrations of the information presented to the last 12 for the average value of the form , which is 3 months again , and there , where it is practically possible - on a monthly basis to update .
8. The population available to be timely information about the alarm thresholds and notification thresholds are exceeded on . The thresholds are exceeded on the information to be accompanied , of the small , the following types of information :
a) the information recorded in excess of :
a . A) location or area of excess ;
a . b) excessive threshold type (private or alarm);
a . C) the time and duration of the start of the excess ;
a . d) the highest one-hour concentration of ozone in addition to the high eight-hour concentration ;
b) information on the type of user , the health of the possible impact of and recommended behavior :
b . a) information about the population of the groups user , who are at risk under the display ;
b . B) description of the probable symptoms ;
b . c) the recommended measures , which must be received by the respective groups by .
9. This article provided information on the health impact on the sets of the occupied territories of refugees , the Ministry of Labor , Health and Social Protection Ministry , the Ministry of Environmental Protection and the Ministry of Agriculture of the agreement .
10. In this article , and I -7 of the information dissemination of the Ministry of Environmental Protection and the Ministry of Agriculture of the system of public law legal entity - the Environmental National Agency .

Appendix .1

Marginal values of sulfur dioxide, nitrogen dioxide, solid particles, lead, benzene and carbon monoxide concentrations in atmospheric air

Harmful substance	Marginal significance	Tolerance limit	Intermediate period	in excess of the allowable 's views on a
Sulfur dioxide (SO_2)	350 mg / m ^{3}	150 mg / m ^{3} (43%)	1 hr	24
	125 mg / m ^{3}		24 hrs	3
Nitrogen dioxide (NO_2)	200 mg / m ^{3}	50% (1)	1 hr	18
	40 mcg / m ^{3}	50% (1)	1 year	0
Solid particles (PM_{10})	50 mcg / m ^{3}	50%	24 hrs	35
	40 mcg / m ^{3}	20%	1 year	0
Solid particles ($PM_{2.5}$)	25 mcg / m ^{3}	20% (1)	1 year	0
Carbon monoxide (CO)	10 mg / m ^{3}	60%	8 p.m.	0
Benzene (C_6H_6)	5 mg / m ^{3}	5 mg / m ^{3} (100%) (1)	1 year	0
Ozone (O_3)	120 mg / m ^{3}	100%	Maximum average 8 hours per day (2)	25 (3 years interval) (3)
Bullet (Pb)	0.5 mg / m ^{3}		1 year	0
Arsenic (As)	6 m g / m ^{3}		1 year	0
Cadmium (Cd)	5 m g / m ^{3}		1 year	0
Nickel (Ni)	20 m g / m ^{3}		1 year	0
Benz (a) Pyrenees ($C_{20}H_{12}$)	1 m g / m ^{3}		1 year	0
Manganese Dioxide (MnO_2)	1 mg / m ^{3}		24 hrs	0

Appendix .2

In order to protect human health , the lower and upper limits of the assessment of the level of some harmful substances in the atmospheric air

Harmful substance	The upper limit of the assessment	Lower limit of assessment	Intermediate period

Sulfur dioxide (SO_2)	limit value of 60% (75 mg / m^3)	limit value of 40% (50 mg / m^3)	24 hrs
Nitrogen dioxide (NO_2)	limit value of 70% (140 mg / m^3)	limit value of 50% (35 mg / m^3)	1 hr
	80% of marginal significance (32 µg / m3)	65% of marginal value (26 µg / m3)	1 year
Solid particles (PM_{10})	limit value of 70% (35 mg / m^3)	limit value of 50% (25 mg / m^3)	24 hrs
	limit value of 70% (28 mg / m^3)	limit value of 50% (20 mg / m^3)	1 year
Solid particles ($PM_{2.5}$)	limit value of 70% (17 mg / m^3)	limit value of 50% (12 mg / m^3)	1 year
Carbon monoxide (CO)	70% of the limit value (7 mg / m^3)	50% of the limit value (5 mg / m^3)	8 p.m.
Benzene (C_6H_6)	limit value 70% (3.5 mg / m^3)	limit value of 40% (2 mg / m^3)	1 year
Bullet (Pb)	limit value of 70% (0.35 mg / m^3)	limit value of 50% (0.25 mg / m^3)	1 year
Arsenic (As)	limit value of 60% (3.6 ng / m^3)	The target margin of 40% (2.4 ng / m^3)	1 year
Cadmium (Cd)	limit value of 60% (3 ng / m^3)	The target margin of 40% (2 ng / m^3)	1 year
Nickel (Ni)	limit value of 70% (14 ng / m^3)	The target margin of 50% (10 ng / m^3)	1 year
Benz (a) Pyrenees ($C_{20}H_{12}$)	limit value of 60% (0.6 ng / m^3)	The target margin of 40% (0.4 ng / m^3)	1 year
Manganese Dioxide (MnO_2)	limit value of 70% (0, 7 mg / m^3)	limit value of 50% (0.5 mg / m^3)	24 hrs

Appendix .3

Targeted value for the concentration of some harmful substances in the atmospheric air for the protection of human health

Harmful substance	Target value	Intermediate period	Date of achievement
Solid particles ($PM_{2.5}$)	20 mcg / m^3	1 year	01.01.2020

Appendix .4

Atmospheric air levels of sulfur dioxide, nitrogen dioxide and ground ozone levels alarm and notification limits

Harmful substance	Alarm limit	Message limit	Intermediate period
Sulfur dioxide (SO_2)	500 mg / m^3 (4)	-	-
Nitrogen dioxide (NO_2)	400 mg / m^3 (4)	-	-
Land Ozone (O_3)	240 mg / m^3 (5)	180 mg / m^3	1 hr

Appendix .5

vegetation cover and other ecosystems protection of ambient air by the sulfur dioxide and nitrogen oxides critical level and the upper and lower limits

Harmful substance	Critical level	The upper limit of the assessment	Lower limit of assessment	Intermediate period	Permissible number of excesses per year
Sulfur dioxide (SO_2)	20 mcg / m^3	The critical level of 60% (12 mg / m^3)	The critical level of 40% (8 mg / m^3)	1 year and winter period (01.10-31.03)	3
Nitrogen Oxides (NOx)	30 mcg / m^3	The critical level of 80% (24 mg / m^3)	The critical level of 65% (19.5 mg / m^3)	1 year	18

Appendix №6

In order to protect vegetation and other ecosystems , the marginal value and long-term purpose of the ground ozone level established in the atmospheric air

Harmful substance	Marginal value	Long-term goal	Intermediate period	in excess of the allowable number of years during

Ozone (O_3)	18 000 (ug / m^3) * h	6 000 (g / m^3) * h	From May to July	AOT40 (calculated from 1-hour values) (average of the 5 -year period) [7]

[1] every 12 months after the equally reduced to 0% by 1 January 2025.

[2] The maximum daily eight-hour mean concentration will be selected by moving eight-hour average for data analysis . The eight- hour average is calculated based on the hourly data interval and is updated hourly . So calculated for each eight-hour average data belong to the day , in which the averaging period of the last hour . For example, the first counting interval period will be for any day Previous Day 17:00 pm - from this day at 01.00 h - including , the final calculation averaging period for the day will be the day at 16.00 pm - the same day 24.00 h - inclusive.

[3] If the three -year average figure will be determined by the gross and consistent annual data on the basis of , the minimum data target on the edge of the establishment of the inspection for the purpose will be a year of reliable data.

[4] limits must have at row three hours a day on the ground, which allows to estimate at least 100 km^2 area or zone / sintering (which is smaller) air quality .

[5] limits and fixed or projected to be a row of three hours a day .

[6] attainment date is not specified.

[7] If the five -year average figure will be determined by the gross and consistent annual data on the basis of , the minimum annual data target on the edge of the establishment of the inspection for the purpose will be three years of reliable data.