

EMISSIONS STANDARDS

RUSSIA



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The main law in the field of air quality protection is the [Federal Law no. 96-FZ](#) *On the protection of the atmospheric air* (4 May 1999), which was amended in 2005 by [Federal Law no. 199-FZ](#). This Law lays down the basis for the 'mandatory state regulation of emissions of harmful (polluting) substances into the air and harmful physical effects on it'. The environmental quality standards for atmospheric air are set by the [Ministry of Natural Resources and Environment](#). Emissions of polluting substances are regulated by: technical emission standards; maximum permissible emissions; maximum permissible standards of harmful physical effects on atmospheric air; and technological emission standards. Technical emission standards apply to both non-stationary emission sources, such as vehicles, and to certain types of stationary sources. The maximum permissible emission limits are applied to each individual emission stationary source and to the aggregate or organisation of which they are a member. The organisation itself develops the draft standards for maximum permissible emissions, which are then submitted for approval to the territorial body of the Federal Service for Supervision of Use of Natural Resources. Any organisation or facility deemed to be causing a harmful physical impact on atmospheric air must also acquire a permit to operate.

As of 2019, environmental protection regulations, including regulations relating to air quality, are applied to enterprises or organisations according to the category to which the facility has been assigned, based on an assessment of the negative environmental impact caused by its activities. For facilities in category 1, emissions are regulated through a comprehensive environmental permit. Emissions are regulated through a declaration on environmental impact submitted to the authorised state body for facilities in category 2. Category 3 facilities are not required to acquire a permit nor to submit a declaration.

TECHNICAL EMISSION STANDARDS FOR BOILER INSTALLATIONS

The technical emission standards for boiler installations in thermal power plants are laid out in the *State standard of the Russian Federation general technical requirements for boiler installations* ([GOST R 50831-95](#)).

Emission standards for boilers constructed at thermal power plants before 31 December 2000

Emission standards for particulate matter for boiler plants constructed before 31 December 2000

Thermal power, MW	Emission limit value*, mg/m ³
<300	150 – 500
≥300	100 – 400

* Limit depends on ash content of coal

Emission standards for SO_x for boiler plants constructed before 31 December 2000

Thermal power, MW	Emission limit value*, mg/m ³
<300	2000 – 3400
≥300	2000 – 3000

* Limit depends on sulphur content of coal

Emission standards for NO_x for boiler plants constructed before 31 December 2000

Thermal power, MW	Fuel type	Emission limit value, mg/m ³
<300	Lignite: solid slag	320
	Lignite: liquid slag	350
	Coal: solid slag	470
	Coal: liquid slag	640
≥300	Lignite: solid slag	370
	Coal: solid slag	540
	Coal: liquid slag	700

Note: All of the emission standards are calculated under normal conditions: temperature 0°C, pressure 101.3 kPa. Those for SO_x and NO_x are on a dry gas basis. The limits are at an air excess ratio of 1.4.

Emission standards for boilers constructed at thermal power plants from 1 January 2001

Emission standards for particulate matter for boiler plants constructed from 1 January 2001

Thermal power, MW	Emission limit value*, mg/m ³
<300	150 – 250
≥300	50 – 150

* Limit depends on ash content of coal

Emission standards for SO_x for boiler plants constructed from 1 January 2001

Thermal power, MW	Emission limit value*, mg/m ³
<200	1200 – 1400
≥200 – <250	950 – 1050
≥250 – <300	700
≥300	700

* Limit depends on sulphur content of coal

Emission standards for NO_x for boiler plants constructed from 1 January 2001

Thermal power, MW	Fuel type	Emission limit value, mg/m ³
<300	Lignite: solid slag	300
	Lignite: liquid slag	300
	Coal: solid slag	470
	Coal: liquid slag	640
≥300	Lignite: solid slag	300
	Coal: solid slag	350
	Coal: liquid slag	570

Note: All of the emission standards are calculated under normal conditions: temperature 0°C, pressure 101.3 kPa. Those for SO_x and NO_x are on a dry gas basis. The limits are at an air excess ratio of 1.4.

Emission standards for carbon monoxide

The emission rate of carbon monoxide (CO) into the atmosphere from coal-fired boiler plants with an air excess ratio of 1.4 should not exceed:


400 mg/m³ for boilers with solid slag removal;

300 mg/m³ for boilers with liquid slag removal.

The limits are calculated under normal conditions: temperature 0°C, pressure 101.3 kPa.

THE STATE PROGRAMME ON ENVIRONMENTAL PROTECTION

The [State Programme on Environmental Protection](#) was adopted in 2014 to establish a coherent and comprehensive set of regulations for environmental management in the Russian Federation. The Ministry of Natural Resources and Environment, along with other relevant regulatory bodies, are required to implement the policy measures set out in the Programme, with six policy areas of key priority: 1) environmental management; 2) biodiversity conservation; 3) hydrometeorology and environmental



monitoring; 4) Arctic research; 5) implementation of the national environmental programme; and 6) conservation of the Baikal Lake.

The Programme also introduces stringent targets for reducing air pollution levels. For stationary sources of emissions, such as coal-fired power stations, the goal is to achieve 91.4% of the 2007 emissions level by 2020. In addition, the policy aims to achieve a 77.4% share of captured substances in total emissions from stationary sources, to fulfil Russia's international obligations.

This paper reflects the IEACCC understanding of the relevant legislation and is not a substitute for the official version. The IEACCC does not guarantee the accuracy of the data included in this paper and accepts no responsibility for any consequences of their use.

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