

EMISSIONS STANDARDS

SOUTH AFRICA



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The Atmospheric Pollution Prevention Act (No. 45 of 1965) was enacted on 21 April 1965, providing the legal basis of policies for air pollution prevention in South Africa and for the establishment of a National Air Pollution Advisory Committee. The [National Environmental Management: Air Quality Act \(No. 39 of 2004\)](#) came into force on 11 September 2005. The Air Quality Act mandates that norms, standards, mechanisms, systems and procedures be issued to improve air quality. It established the national framework within which these standards are created, giving the Minister of Environmental Affairs and Tourism or the members of the Executive Council of a province (MEC) the authority to issue standards, enforce regulations and other measures, implement penalties for noncompliance and establish 'funding arrangements'. Under this Act, the Minister of Environmental Affairs and Tourism drafted Regulations Relating to Listed Activities and Minimum Emission Standards in which the emission limit values for emissions of air pollutants from combustion plants and industrial processes are set. [The Minimum Emissions Standards](#), which took effect from 1 April 2010, apply to both permanently operated plants and for experimental (pilot) plants with a design capacity equivalent to the one of a listed activity. A 'new plant standard' applies to all plants applying for authorisation after 1 April 2010, while existing plants had until 1 April 2015 to comply with the 'existing plant standard' and until 1 April 2020 to meet the new plant standard.

Minimum emissions standards for combustion installations burning solid fuel

Pollutant	Emission limit value, mg/m ³	
	New plant	Existing plant
Particulate matter	50	100
SO ₂	500	3500
NO _x (as NO ₂)	750	1100

The emission limit values apply to all solid fuels (excluding biomass) combustion installations used primarily for steam raising or electricity generation with design capacity equal to or greater than 50 MW heat input per unit, based on the lower calorific value of the fuel used.

Continuous emission monitoring of particulate matter (PM), SO₂ and NO_x is required. However, installations less than 100 MW heat input per unit must adhere to periodic emission monitoring.

Minimum emission standards for carbonisation and coal gasification (combustion installations)

Pollutant	Emission limit value, mg/m ³	
	New plant	Existing plant
Particulate matter	50	100
NO _x (as NO ₂)	700	2000
Total volatile organic compounds (from non-coke oven operations)	40	90

The emission limit values are applicable to all combustion installations not used primarily for steam raising or electricity generation (except test or experimental installations).

Note: Sulphur-containing compounds to be recovered from gases to be used for combustion with a recovery efficiency of not less than 90% or remaining content of sulphur-containing compounds to be less than 1000 mg/m³ measured as hydrogen sulphide, whichever is strictest.

Minimum emissions standards for metallurgical industry (combustion installations)

Pollutant	Emission limit value, mg/m ³	
	New plant	Existing plant
Particulate matter	50	100
SO ₂	500	500
NO _x (as NO ₂)	500	2000

The emission limit values are applicable to all combustion installations not used primarily for steam raising or electricity generation (except test or experimental installations).

The emission limit values are expressed on a daily average basis on dry flue gas at 0°C and 101.3 kPa, with the oxygen content appropriate to the fuel type used.

General notes

1. “Existing plant” means any plant or process that has been legally authorised to operate before 1 April 2010, or any plant where an application for authorisation in terms of the National Environmental Management Act 1998 was made before 1 April 2010.
2. “New plant” means any plant or process where the application for authorisation in terms of the National Environmental Management Act, as amended, was made on or after 1 April 2010.
3. Minimum emission standards are expressed on a daily average basis, under normal conditions of 0°C, 101.3 kPa and dry flue gas basis with 10% of oxygen in the flue gas (except for the metallurgical industry).



PRIORITY AIR POLLUTANTS

On 8 January 2016, under the authority of the Air Quality Act, the Minister of Environmental Affairs designated a number of greenhouse gases as “priority air pollutants”. These were: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆). The [Declaration of Greenhouse Gases as Priority Air Pollutants](#) requires any person conducting a production process involving any of these priority pollutants, as listed under the Declaration, to submit a pollution prevention plan for approval by the Minister. This person must then “monitor, evaluate and report on the implementation of the pollution prevention plan.” The list of production processes includes coal mining, production of liquid fuels from coal or gas, and electricity production (combustion of fossil fuels, excluding the use of back-up generators).

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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