

EMISSIONS STANDARDS

PAKISTAN



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The [Pakistan Environmental Protection Act \(1997\)](#) sets the basis for environmental legislation. Under the authority of the Act, the Pakistan Environmental Protection Agency has laid out a set of [National Environmental Quality Standards \(NEQS\) for Ambient Air](#). In consideration of these NEQS, the Government of Pakistan, under the authority of the Environmental Protection Act, has adopted the [Pollution Charge for Industry Rules \(2001\)](#). These rules require any industry responsible for discharging gaseous emissions to pay a charge calculated from the flow rate of the gas in the chimney or stack and the concentration of pollutant in the gas stream. The gaseous emissions for which an industrial facility may be charged include carbon monoxide (CO), nitrogen oxides (NO_x), sulphur oxides (SO_x), and particulate matter.

Industrial emission standards are set by the [National Environmental Quality Standards \(NEQS\) for Industrial Gaseous Emission](#), published in the Gazette of Pakistan Extraordinary (10 August 2000).

NEQS for industrial gaseous emissions from coal-fired facilities

Pollutant	Existing standards, mg/m ³	Revised standards, mg/m ³
Particulate matter	500	500
SO _x	400	1700
NO _x	-	1200
CO	800	800
Mercury	10	10

All emission standards are calculated under normal conditions: temperature 0°C, pressure 101.3 kPa.

Smoke opacity is not to exceed 40%, or no. 2 on the Ringlemann scale.

SO₂ AND NO_x EMISSION STANDARDS

Coal-fired power plants must meet the following standards for sulphur dioxide and nitrogen oxides emissions in addition to the NEQS specified above.

Standards for background levels of sulphur dioxide

Background air quality (SO ₂ basis)	Annual average, µg/m ³	24 hour maximum, µg/m ³	Maximum emission, tons per day per plant	Maximum allowable ground level increment to ambient ⁽¹⁾ , µg/m ³
Unpolluted	<50	<200	500	50
Moderately polluted	Linear interpolations should be used for intermediate values between 50 and 100 µg/m ³			
Low	50	200	500	50
High	100	400	100	10
Very polluted ⁽²⁾	>100	>400	100	10

⁽¹⁾ One year average.

⁽²⁾ No projects with sulphur dioxide emissions will be recommended.

Nitrogen oxide emission standards

Ambient air concentrations of nitrogen oxides, NO_x, should not exceed:

an annual mean of 100 µg/m³ (0.05 ppm).

Emission levels for stationary source discharges before mixing with the atmosphere should be maintained at:

300 ng/J of heat input for solid fossil fuels;

260 ng/J of heat input for lignite.

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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