

# EMISSIONS STANDARDS

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## INDONESIA

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# INDONESIA

The emission standards for Indonesia are established by the [Ministry of Environment and Forestry](#). Standards for stationary sources were first introduced in 1998 by Ministry of Environment decree KEP-02/MENKLH/1/1998. They were replaced in 1995 by decree KEP-13/MENLH/3/1995, and again in 2008. The current regulations are outlined in decree [P.15/MENLHK/4/2019](#), introduced 23 April 2019, which provides maximum concentrations of pollutants that can be emitted to the atmosphere for new and existing thermal power plants.

## Emission standards for coal-fired power plants

Pollutant	Emission limits for existing plants, mg/m <sup>3</sup>	Emission limits for new plants, mg/m <sup>3</sup>
Particulate matter (PM)	100	50
Sulphur dioxide (SO <sub>2</sub> )	550	200
Nitrogen oxides (NO <sub>x</sub> )	550	200
Mercury (Hg)	0.03	0.03

Gas volume is measured at 25°C, 1 atm (101.3 kPa). All parameters are corrected with 7% O<sub>2</sub> for coal.

Existing plants are those in operation before the publication of the new decree (23 April 2019).

New plants are those put into operation after the publication of the new decree.

## Emission standards for plants using mixed fuels

For power plants that burn mixed fuels, for each generating unit the emission standard is calculated based upon the ratio of each fuel type using the following formula:

$$\text{Emission standard } x = AxX + BxY + CxZ$$

where:

x = the pollutant

Ax = the emission standard for the pollutant for coal (mg/m<sup>3</sup>)

Bx = the emission standard for the pollutant for oil (mg/m<sup>3</sup>)

Cx = the emission standard for the pollutant for gas (mg/m<sup>3</sup>)

X = ratio of heat input from coal

Y = ratio of heat input from oil

Z = ratio of heat input from gas

## EMISSION STANDARDS FOR INDUSTRIAL BOILERS

Emission standards for industrial boilers were issued on 8 May 2007 under [Regulation Number 07 of 2007](#). The regulations include limits for the emissions of sulphur dioxide, nitrogen oxides (as nitrogen dioxide) and particulate matter from industrial boilers. Fuel types covered include various forms of biomass, coal, oil, and natural gas.

### Emission standards for coal-burning boilers

Pollutant	Emission limit, mg/m <sup>3</sup>
Particulate matter (PM)	230
Sulphur dioxide (SO <sub>2</sub> )	750
Nitrogen oxides (NO <sub>x</sub> )	825

Reference conditions are 25°C, 101.3 kPa (1 atm) on a dry flue gas basis, and for particulate matter, with 6% of O<sub>2</sub> in the flue gas.

### Emission standards for boilers using mixed fuels

For boilers that utilise mixed fuels the emission standards are calculated based upon the ratio of each fuel type, using the following formula:

$$\text{Emission standard} = (AX + BY)/Q$$

where:

A = pollutant emission standard when only fuel 1 is used

B = pollutant emission standard when only fuel 2 is used

X = heat input from fuel 1

Y = heat input from fuel 2

Q = total heat input

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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