

Hungary

The first Hungarian environmental act, Act on the Protection of the Human Environment was adopted in 1976 and it was superseded in 1995 by the Act on General Rules of Environmental Protection (Act No. LIII/1995). The Act, as amended, provides the legal framework for regulating air quality and atmospheric emissions in Hungary. A number of legal instruments have been enacted since 1986 and constitute the legal basis for air quality management in Hungary. Emission standards for stationary sources were first established in 1986 on a case-by-case basis in Regulation No. 4/1986 (VI.2) OKTH on the implementation of Order No. 21/1986 (VI.2) MT regarding the Protection of Air Quality. Upon applying to join the EU, the Government Programme for 1998 to 2002 was carried out introducing a legal harmonisation programme with the aim of achieving complete approximation of Hungarian environmental laws with EU legislation by 2002. As a result, the EU Directive 2001/80/EC has been implemented in Hungary's Regulation No. 10/2003 (VII.11) KvVM on the Limitation of Emissions of Certain Pollutants Into the Air from Large Combustion Plants with a Rated Thermal Input Equals to or Greater than 50 MWth (came into force on 19 Aug 2003). The emission standards for combustion plants with capacity between 140 kWt and 50 MWth are set in Regulation No. 23/2001 (XI.13) KöM.

Emission standards for coal-combustion plants with rated thermal input of 140 kWt or greater and smaller than 50 MWth

pollutant	fuel	emission limit value, mg/m ³
particulate matter		150
	lignite	3000
SO ₂ and SO ₃ (as SO ₂)	imported coal	400
	other coal	2000
	domestic lignite	300
NO _x (as NO ₂)	(heating value < 7000 kJ/kg)	300
	other coal	650*
CO		250

* fluidised-bed combustion boilers are subject to an ELV of 200 mg/m³.

Note: Above ELVs are expressed as at 0 °C, 101.3 kPa and dry flue gas basis with 7% oxygen in the flue gas.

Emission standards for particulate matter from coal-fired large combustion plant

plant type	plant size P, MWth	emission limit value, mg/m ³
existing plant	$50 \leq P < 100$	100
	$P \geq 100$	50
new plant	$50 \leq P < 100$	50
	$P \geq 100$	30

Emission standards for sulphur oxides (as SO₂) from coal-fired large combustion plant

1. Emission limit values for existing plants

emission limit value, mg/m ³		
$50 \leq P < 100$	$100 \leq P < 500$	$P \geq 500$
2000	$2000 - 4(P - 100)$	400

- Note: 1. Where the emission limit values above cannot be met due to the characteristics of coal, a rate of desulphurisation of at least 60% shall be achieved in the case of plants with a rated thermal input of less than or equal to 100 MWth, at least 75% for plants greater than 100 MWth and less than or equal to 300 MWth and at least 90% for plants greater than 300 MWth and less than or equal to 500 MWth. For plants greater than 500 MWth, a desulphurisation rate of at least 94% shall apply or of at least 92% where a contract for the fitting of flue gas desulphurisation or lime (or limestone) injection equipment has been entered into, and work on its installation has commenced, before 1 Jan 2001.
2. For existing plants licensed before 1 Jul 1987 and with a rated thermal input of 400 MWth or greater, and do not operate more than 2000 hours a year until 31 Dec 2015, and do not operate more than 1500 hours a year from 1 Jan 2016 (rolling average over a period of five years), an ELV of 800 mg/m³ may apply.

2. Emission limit values for new plants

plant size P, MWth	emission limit value, mg/m ³
$50 \leq P < 100$	850
$P \geq 100$	200

- Note: 1. Where the emission limit values above cannot be met due to the characteristics of the fuel, installations shall achieve 300 mg/m³ SO₂, or a rate of desulphurisation of at least 92% shall be achieved in the case of plants with a rated thermal input of less than or equal to 300 MWth and in the case of plants with a rated thermal input greater than 300 MWth a rate of desulphurisation of at least 95% together with a maximum permissible emission limit value of 400 mg/m³ shall apply.

Emission standards for nitrogen oxides (as NO₂) from coal-fired large combustion plant

plant type	fuel type	plant size P, MWth	emission limit value, mg/m ³
existing plant	lignite	≥ 50	300
	other coal	$50 \leq P < 500$	600
		$P \geq 500$	500 (until 31 Dec 2015) 200 (from 1 Jan 2016)
new plant	lignite	$50 \leq P < 100$	300
	other coal	$50 \leq P < 100$	400
	general	$P > 100$	200

Note: 1. Fluidised-bed combustion boilers shall comply with the ELV of 200 mg/m³.

- General note:
1. 'Existing plant' refers to any large combustion plant for which the construction permit was granted before coming into force of the Regulation.
 2. 'New plant' refers to any large combustion plant for which the construction permit is granted, as well any facility modernised (reconstructed) for air protection purposes after this Regulation came into effect.
 3. For large combustion plants, permitted before 11 Jul 1998 and failing to meet the above ELVs required for existing plant after 1 Jan 2005, the operation of such plants shall be suspended.
 4. For large combustion plants permitted before 1 Jul 1987, however, operating not at sites of power plants or other plants falling under the effect of Act CX of 2001 on electricity, with rated thermal input of 50 MWth or greater, and not meeting the above ELVs for existing plants after 1 Jan 2008, the operation of such plants shall be suspended.
 5. For large combustion plants, for which the construction permits were granted between 11 Jul 1998 and the day when this Regulation came into force, and not meeting the above ELVs for existing plants, the operation of such plants shall be suspended.
 6. For large combustion plants modernised (reconstructed) for air protection purposes, or for facilities on which modernisation (reconstruction) was started, between 11 Jul 1998 and the day when this Regulation came into effect, the compliance with above ELVs for existing plants shall be observed.
 7. Above emission limit values for large combustion plants are expressed as at 0 °C, 101.3 kPa and dry flue gas basis with 6% oxygen in the flue gas.