



Finland

The Ministry of the Environment (Ympäristöministeriö, <http://www.ym.fi>) is responsible for drafting legislation to protect the environment in Finland. The Environmental Protection Department deals with issues relating to air pollution abatement. As a member state of the European Union (EU), Finland has transposed a series of EU directives and regulations relating to power plant emissions into law, including the Industrial Emissions Directive (IED, 2010/75/EU). This Directive has been implemented under the *Environmental Protection Act (527/2014)*, available at <http://www.finlex.fi/fi/laki/smur/2014/20140527>. The principles of the Act are to prevent and minimise harmful impacts of pollutants, and to use best available techniques (BAT) and best practices to prevent pollution. The Regional State Administrative Agencies are the state authorities charged with issuing environmental permits under the Act for power plants to operate.

Large combustion plants

In accordance with the Environmental Protection Act (527/2014), the emission limit values for large combustion plants (over 50 MW) are given in the *Government Regulation on the limitation of emissions from large combustion plants (936/2014)* (*Valtioneuvoston asetussuurten polttolaitosten päästöjen rajoittamisesta, 936/2014*, <http://www.finlex.fi/fi/laki/alkup/2014/20140936>), which came into force on 20 November 2014.

Particulate matter emission limits

Total rated thermal input, MW	Existing plants, mg/Nm ³	New plants, mg/Nm ³
≥50-≤100	30	20
>100-≤300	25	20
>300	20	10

SO₂ emission limits

Total rated thermal input, MW	Existing plants*, mg/Nm ³	New plants, mg/Nm ³
≥50-≤100	400	400
>100-≤300	250	200
>300	200	150 200 for circulating or pressurised fluidised bed combustion

* Plants which were granted a permit, or had submitted an application for one, before 27 November 2002 and were operating prior to 27 November 2003 can meet a limit of 800 mg/Nm³, provided they do not operate for more than 1500 hours as a rolling average over 5 years.

NO_x emission limits (calculated as NO₂)

Total rated thermal input, MW	Existing plants*, mg/Nm ³	New plants, mg/Nm ³
≥50-≤100	300	300
>100-≤300	200	200
>300	200	150

* 1. Plants with a total rated thermal input under 500 MW that were granted a permit, or had submitted an application for one, before 27 November 2002 and were operating prior to 27 November 2003 can meet a limit of 450 mg/Nm³, provided they do not operate for more than 1500 hours as a rolling average over 5 years.

2. Plants with a total rated thermal input over 500 MW that were granted a permit before 1 July 1987 can meet a limit of 450 mg/Nm³, provided they do not operate for more than 1500 hours as a rolling average over 5 years.

General notes

1. 'Existing plant' means any combustion plant whose operation was authorised before 20 February 2013 or had submitted an application before this date provided the plant was put into operation by 20 February 2014. The emission limit values apply from 1 January 2016.
2. Existing plants which were exempted from compliance with the emission limit values because they operated for less than 20,000 hours over the period 1 January 2008 to 31 December 2015, but are still operating after 1 January 2016 have to meet the emission limits for new plants.
3. 'New plants' are plants granted an environmental permit on or after 20 February 2013.
4. All the above emission limit values are expressed at 0°C, 101.3 kPa, on a dry basis, and with 6% of O₂ in the flue gas.

Medium combustion plants

The EU *Medium Combustion Plants Directive (2015/2193)* has been adopted by Finland and came into force on 18 December 2015. It applies to existing and new combustion plants with a total rated thermal input of 1–50 MW (<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32015L2193>). The emissions limit values for plants burning coal and other solid fuels (except biomass) are given in the following table. They apply from 20 December 2018 for new plants, and from 1 January 2025 for bigger existing plants (>5–50 MWth) and from 1 January 2030 for smaller existing plants (1–≤5 MWth).

	Existing plants, ≥1 – ≤5 MWth	Existing plants, >5 – <50 MWth	New plants, ≥1 – <50 MWth
Particulate matter, mg/Nm ³	50	30 ⁽¹⁾	20 ⁽³⁾
SO ₂ , mg/Nm ³	1100	400 ⁽²⁾	400
NO _x , mg/Nm ³	650	650	300 ⁽⁴⁾

⁽¹⁾ 50 mg/Nm³ in the case of plants with a rated thermal input >5 MW and ≤ 20 MW.

⁽²⁾ 1100 mg/Nm³ in the case of plants with a rated thermal input >5 MW and ≤20 MW.

⁽³⁾ 50 mg/Nm³ in the case of plants with a total rated thermal input ≥ 1 MW and ≤ 5 MW; 30 mg/Nm³ in the case of plants with a total rated thermal input > 5 MW and ≤ 20 MW.

⁽⁴⁾ 500 mg/Nm³ in the case of plants with a total rated thermal input ≥ 1 MW and ≤ 5 MW.

General notes

1. 'Existing plant' means a combustion plant put into operation before 20 December 2018 or for which a permit was granted before 19 December 2017, provided the plant is put into operation no later than 20 December 2018.
2. 'New plant' means a combustion plant other than an existing combustion plant.
3. Finland may exempt existing plants which do not operate for more than 500 operating hours per year, as a rolling average over a period of five years. However, an emission limit value for particulate matter of 200 mg/Nm³ applies to plants firing solid fuels.
4. Finland may exempt new plants which do not operate for more than 500 operating hours per year, as a rolling average over a period of three years. However, an emission limit value for particulate matter of 100 mg/Nm³ applies to plants firing solid fuels.
5. All the above emission limit values are expressed at 0°C, 101.3 kPa and dry flue gas basis with 6% of O₂ in the flue gas.

This paper reflects the IEA CCC understanding of the relevant legislation and is not a substitute for the official version. The IEA CCC 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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