

## Limit Values of Directive 1999/30/EC

Pollutant	Limit Value Objective	Averaging Period	Limit Value $\mu\text{g}/\text{m}^3$	Limit Value ppb	Basis of Application of the Limit Value	Limit Value Attainment Date
SO <sub>2</sub>	Protection of human health	1 hour	350	132	Not to be exceeded more than 24 times in a calendar year	1 Jan 2005
SO <sub>2</sub>	Protection of human health	24 hours	125	47	Not to be exceeded more than 3 times in a calendar year	1 Jan 2005
SO <sub>2</sub>	Protection of vegetation	calendar year	20	7.5	Annual mean	19 July 2001
SO <sub>2</sub>	Protection of vegetation	1 Oct to 31 Mar	20	7.5	Winter mean	19 July 2001
NO <sub>2</sub>	Protection of human health	1 hour	200	105	Not to be exceeded more than 18 times in a calendar year	1 Jan 2010
NO <sub>2</sub>	Protection of human health	calendar year	40	21	Annual mean	1 Jan 2010
NO+ NO <sub>2</sub>	Protection of ecosystems	calendar year	30	16	Annual mean	19 July 2001

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PM10 – Stage 1	Protection of human health	24 hours	50	Not to be exceeded more than 35 times in a calendar year	1 Jan 2005
PM10 - Stage 1	Protection of human health	calendar year	40	Annual mean	1 Jan 2005
PM10 - Stage 2	Protection of human health	24 hours	50	Not to be exceeded more than 7 times in a calendar year	1 Jan 2010
PM10 - Stage 2	Protection of human health	calendar year	20	Annual mean	1 Jan 2010
Lead	Protection of human health	calendar year	0.5	Annual mean	1 Jan 2005

## Alert Thresholds

The public must be informed if the following thresholds are exceeded for three consecutive hours.

<b>Pollutant</b>	<b>Averaging Period</b>	<b>Limit Value</b>
Sulphur Dioxide	1 hour	500 µg/m <sup>3</sup>
Nitrogen Dioxide	1 hour	400 µg/m <sup>3</sup>

## Limit Values of Directive 2000/69/EC

<b>Pollutant</b>	<b>Limit Value Objective</b>	<b>Averaging Period</b>	<b>Limit Value µg/m<sup>3</sup></b>	<b>Limit Value ppb</b>	<b>Limit Value Attainment Date</b>
Carbon Monoxide	Protection of human health	8 hours	10000	8620	1 Jan 2005
Benzene	Protection of human health	calendar year	5	1.5	1 Jan 2010

## Target Values for Ozone from 2010

Objective	Parameter	Value
Protection of human health	Maximum daily 8 hour mean	120 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 25 days per calendar year averaged over 3 years
Protection of vegetation	AOT40, calculated from 1 hour values from May to July	18000 $\mu\text{g}/\text{m}^3$ -h averaged over 5 years

## Long Term Objectives for Ozone from 2020

Objective	Parameter	Value
Protection of human health	Maximum daily 8 hour mean	120 $\mu\text{g}/\text{m}^3$
Protection of vegetation	AOT40, calculated from 1 hour values from May to July	6000 $\mu\text{g}/\text{m}^3$ -h

## Information and Alert Thresholds

The public must be informed if ozone levels exceed the following thresholds

	Parameter	Threshold
Information Threshold	1 hour average	180 $\mu\text{g}/\text{m}^3$
Alert Threshold	1 hour average	240 $\mu\text{g}/\text{m}^3$

The fourth daughter directive [\(2004/107/EC\)](#) was published in January 2005. It covers polyaromatic hydrocarbons, arsenic, nickel, cadmium and mercury in ambient air.

	Parameter	Target value ng/m <sup>3</sup> <sup>(2)</sup>
<b>Arsenic</b>	Yearly average	6
<b>Cadmium</b>	Yearly average	5
<b>Nickel</b>	Yearly average	20
<b>Benzo(a)pyrene</b> <sup>(1)</sup>	Yearly average	1

(1) Benzo(a)pyrene used as a marker for the carcinogenic risk of polycyclic aromatic hydrocarbons in ambient air.

(2) For the total content in the PM<sub>10</sub> fraction averaged over a calendar year.

*Note: Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 15 February 2007 at the latest.*

## The national air quality guidelines

POLLUTANT	PERIOD	GUIDELINE $\mu\text{g}/\text{m}^3$ , CO $\text{mg}/\text{m}^3$	STATISTICAL DEFINITION
<b>Sulphur dioxide</b> SO <sub>2</sub>	hour day	250 80	may be exceeded by no more than 1 % in a month may be exceeded no more than once a month
<b>Nitrogen dioxide</b> NO <sub>2</sub>	hour day	150 70	may be exceeded by no more than 1 % in a month may be exceeded no more than once a month
<b>Carbon monoxide</b> CO	hour 8-hour	20 8	hourly average running average
<b>Particulate matter</b> TSP	day year	120 50	may be exceeded by no more than 2 % in a month annual mean
<b>Particulate matter</b> PM <sub>10</sub>	day	70	may be exceeded no more than once a month
<b>Malodorous sulphur compounds</b> TRS	day	10	may be exceeded no more than once a month