

Information on nitrogen oxides (NO₂, NO_x)

1 Limit values

Table 1

	Averaging period	Limit value	Date since the limit value is to be met	Margin of tolerance
Hourly limit value for the protection of human health	1 hour	200 µg/m ³ NO ₂ , not to be exceeded more than 18 times a calendar year	1 January 2010	100 µg/m ³ in zones with time extension until 31.12.2014
Annual limit value for the protection of human health	Calendar year	40 µg/m ³ NO ₂	1 January 2010	20 µg/m ³ in zones with time extension until 31.12.2014
Annual limit value for the protection of vegetation	Calendar year	30 µg/m ³ NO _x	19 July 2001	None

The volume must be standardised at a temperature of 293 K and an atmospheric pressure of 101,3 kPa.

2 Alert threshold

If more than 400 µg/m³ NO₂ are measured over three consecutive hours at locations representative of air quality over at least 100 km² or an entire zone or agglomeration, whichever is the smaller, the Member State has to apprehend adequate measures.

3 Upper and lower assessment thresholds

Table 2

	Hourly limit value for the protection of human health (NO ₂)	Annual limit value for the protection of human health (NO ₂)	Annual limit value for the protection of vegetation (NO _x)
Upper assessment threshold	140 µg/m ³ , not to be exceeded more than 18 times in any calendar year	32 µg/m ³	24 µg/m ³
Lower assessment threshold	100 µg/m ³ , not to be exceeded more than 18 times in any calendar year	26 µg/m ³	19,5 µg/m ³

4 Data quality objectives

Table 3

Data collection	Data quality objective
Continuous measurement	
Uncertainty	15 %
Minimum data capture	90 %
Indicative measurement	
Uncertainty	25 %
Minimum data capture	90 %
Minimum time coverage	14 % (One day's measurement a week at random, evenly distributed over the year, or eight weeks evenly distributed over the year.)
Modelling	
Uncertainty	
Hourly averages	50 %
Annual averages	30 %
Objective estimation	
Uncertainty	75 %

5 Reference method for the measurement of nitrogen dioxide and oxides of nitrogen

The reference method for the measurement of nitrogen dioxide and oxides of nitrogen is that described in EN 14211:2012 “Ambient air – Standard method for the measurement of the concentration of nitrogen dioxide and nitrogen monoxide by chemiluminescence”.

6 Minimum details to be made available to the public when the alert threshold for nitrogen dioxides is exceeded

Details to be made available to the public should include at least:

- the date, hour, place and the reasons for the occurrence,
- any forecasts of: changes in concentrations together with the reasons for those changes,
- the geographical area concerned, the duration of the occurrence,
- the type of population potentially sensitive to the occurrence,
- the precautions to be taken by the sensitive population concerned.

7 Legal basis

- Directive 2008/50/EC of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ EC. L 152/1)
- COMMISSION DIRECTIVE (EU) 2015/1480 of 28 August 2015 amending several annexes to Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council laying down the rules concerning reference methods, data validation and location of sampling points for the assessment of ambient air quality
- 39th Ordinance Implementing the Federal Immission Control Act (Ordinance on Air Quality Standards and Emission Ceilings - 39. BImSchV)