

GOVERNMENT NOTICES

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

No. 1210

24 December 2009

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (ACT NO. 39 OF 2004)

NATIONAL AMBIENT AIR QUALITY STANDARDS

I, Buyelwa Patience Sonjica, Minister of Water and Environmental Affairs, in terms of section 9(1) of the Act, hereby establishes the national ambient air quality standards as set out in the Schedule to this notice.



BUYELWA SONJICA
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

SCHEDULE

1. DEFINITIONS

"averaging period" means a period over which an average value is determined.

"compliance date" means the date in which compliance with the standard is required.

"frequency of exceedence" means a frequency (number/time) related to a limit value representing the tolerated exceedence of that limit value at a specific monitoring location, i.e. if exceedences of limit value are within the tolerances, then there is still compliance with the standard. This exceedence is applicable to a calendar year.

"limit value" means a level fixed on the basis of scientific knowledge, with the aim of reducing harmful effects on human health (or the environment (or both)), to be attained within a given compliance period and not to be exceeded once attained.

2. GENERAL

2.1 Reference conditions

Concentrations shall be expressed at a standardised temperature of 25 °C and a pressure of 101,3 kPa.

2.2 Reference methods

Where test methods are specified, any other method which can be demonstrated to give equivalent results may be used. Documentary proof of equivalence in the form of test results from a SANAS accredited laboratory or a peer-reviewed report shall be provided. The obligation to provide sufficient proof shall lie with the proponent.

2.3 Ambient air quality measurement requirements

Assessment of all ambient pollutant concentrations shall be conducted in terms of section 5.2.1.3 of the National Framework for Air Quality Management in the Republic of South Africa.

3. NATIONAL AMBIENT AIR QUALITY STANDARDS

3.1 National Ambient Air Quality Standards for Sulphur Dioxide (SO₂)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
10 minutes	500 µg/m ³ (191 ppb)	526	Immediate
1 hour	350 µg/m ³ (134 ppb)	88	Immediate
24 hours	125 µg/m ³ (48 ppb)	4	Immediate
1 year	50 µg/m ³ (19 ppb)	0	Immediate
The reference method for the analysis of sulphur dioxide shall be ISO 6767			

3.2 National Ambient Air Quality Standards for Nitrogen Dioxide (NO₂)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
1 hour	200 µg/m ³ (106 ppb)	88	Immediate
1 year	40 µg/m ³ (21 ppb)	0	Immediate
The reference method for the analysis of nitrogen dioxide shall be ISO 7996			

3.3 National Ambient Air Quality Standards for Particulate Matter (PM₁₀)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
24 hours	120 µg/m ³	4	Immediate – 31 December 2014
24 hours	75 µg/m ³	4	1 January 2015
1 year	50 µg/m ³	0	Immediate – 31 December 2014
1 year	40 µg/m ³	0	1 January 2015
The reference method for the determination of the particulate matter fraction of suspended particulate matter shall be EN 12341			

3.4 National Ambient Air Quality Standards for Ozone (O₃)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
8 hours (running)	120 µg/m ³ (61 ppb)	11	Immediate
The reference method for the analysis of ozone shall be UV photometric method as described in SANS 13964			

3.5 National Ambient Air Quality Standards for Benzene (C₆H₆)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
1 year	10 µg/m ³ (3.2 ppb)	0	Immediate – 31 December 2014
1 year	5 µg/m ³ (1.6 ppb)	0	1 January 2015
The reference methods for the sampling and analysis of benzene shall either be EPA compendium method TO-14 A or method TO-17			

3.6 National Ambient Air Quality Standards for Lead (Pb)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
1 year	0.5 $\mu\text{g}/\text{m}^3$	0	Immediate
The reference method for the analysis of lead shall be ISO 9855			

3.7 National Ambient Air Quality Standards for Carbon Monoxide (CO)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
1 hour	30 mg/m^3 (26 ppm)	88	Immediate
8 hour (calculated on 1 hourly averages)	10 mg/m^3 (8.7 ppm)	11	Immediate
The reference method for analysis of Carbon Monoxide shall be ISO 4224			