Variation to the National Environment Protection (Ambient Air Quality) Measure

National Environment Protecton Council Act 1994

The NATIONAL ENVIRONMENT PROTECTION COUNCIL makes this variation to the National Environment Protection (Ambient Air Quality) Measure under section 20 of the *National Environment Protection Council Act 1994* (Cwlth), *National Environment Protection Council (New South Wales) Act 1995* (NSW), *National Environment Protection Council (Victoria) Act 1995* (Vic), *National Environment Protection Council (Queensland) Act 1994* (Qld), *National Environment Protection Council (Western Australia) Act 1996* (WA), *National Environment Protection Council (South Australia) Act 1995* (SA), *National Environment Protection Council (Tasmania) Act 1995* (Tas), *National Environment Protection Council Act 1994* (ACT) and the *National Environment Protection Council (Northern Territory) Act 1994* (NT)

Dated 15 December 2015

1 Name of Variation

This Variation is the Variation to the National Environment Protection (Ambient Air Quality) Measure 2015.

2 Amendment of National Environment Protection (National Pollutant Inventory) Measure

Schedule 1 amends the National Environment Protection (Ambient Air Quality) Measure.

3 Commencement

This Variation commences on the day after it is registered.

Schedule 1 Amendments

(section 3)

Introductory Note

Section 20 of the *National Environment Protection Council Act 1994* and the equivalent provision of the corresponding Act of each participating State and Territory enables the National Environment Protection Council to vary a National Environment Protection Measure. This is a variation to the National Environment Protection (Ambient Air Quality) Measure made by the National Environment Protection Council on 26 June 1998 and varied on 23 May 2003.

The Variation is to be implemented by the laws and other arrangements participating jurisdictions consider necessary (see Section 7 of the Commonwealth Act and the equivalent provision of the corresponding Act of each participating State and Territory).

[1] Section 1

Repeal the note

[2] Section 2

Delete:

Advisory Reporting Standard means a health-based standard to assess the results of monitoring for particles as $PM_{2.5}$. These standards do not have a timeframe for compliance associated with them.

[3] Section 2

Insert:

Exceptional event means a fire or dust occurrence that adversely affects air quality at a particular location, and causes an exceedance of 1 day average standards in excess of normal historical fluctuations and background levels, and is directly related to: bushfire; jurisdiction authorised hazard reduction burning; or continental scale windblown dust.

[4] Section 3

Repeal the section, substitute:

3 Application

Participating jurisdictions must:

(a) for carbon monoxide, nitrogen dioxide, photochemical oxidants (as ozone), sulfur dioxide, lead, particles as $PM_{2.5}$ and particles as PM_{10}, monitor, assess and report in accordance with the protocol in this Measure.

[5] Section 6

Repeal the section, substitute:

6 National Environment Protection Goal

The national environment protection goals of this Measure are:

(a) for carbon monoxide, nitrogen dioxide, photochemical oxidants (as ozone), sulfur dioxide, lead and particles (as PM_{10} and $PM_{2.5}$) to achieve the National Environment Protection Standards as assessed in accordance with the monitoring protocol (Part 4) to the extent specified in Schedule 2 table 1; and

(b) for particles as $PM_{2.5}$, to achieve by 2025 further reductions in maximum concentrations to the extent specified in Schedule 2 table 2 .

[6] Subsection 8(2)

Repeal the subsection, substitute:

(2) For each pollutant mentioned in table 1 of Schedule 2, the standard for an averaging period mentioned in the Schedule is the concentration in column 4 of table 1 of Schedule 2.

[7] Subsection 13(1)

Repeal the subsection, substitute:

(1) To the extent practicable, performance monitoring stations should be sited in accordance with the requirements for Australian Standard AS/NZS 3580.1.1:2007 (Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment). Any variations from AS/NZS 3580.1.1:2007 must be notified to Council for use in assessing reports.

[8] Subsection 17(2)

Repeal the subsection, substitute:

(2) For each performance monitoring station in the jurisdiction or assessment in accordance with subclause 11(b) there must be:

(a) a determination of the exposed population in the region or sub-region represented by the station; and

(b) an evaluation of performance against the standards and goal of this Measure, other than in relation to table 2 of Schedule 2, as:

(i) meeting; or

(ii) not meeting; or

(iii) not demonstrated.

[9] After subsection 17(2)

Insert:

(2A) Each participating jurisdiction must evaluate and report population exposures to particles as $PM_{2.5}$ annually from June 2018.

Note To ensure national consistency, evaluation and reporting shall be undertaken in accordance with any procedures or methods agreed by participating jurisdictions.

[10] Subsection 18(1)

Repeal the subsection, substitute:

(1) Each participating jurisdiction must submit a report on its compliance with the Measure, other than in relation to table 2 of Schedule 2, in an approved form to Council by the 30 June next following each reporting year.

[11] After subsection 18(3)

Insert:

(3A) When reporting against PM_{10} and $PM_{2.5}$ 1 day average standards jurisdictions will report all measured data, including monitoring data that is directly associated with an exceptional event, and identify and describe any exceptional event.

(3B) Jurisdictions are to maintain and make available records relating to the determination of exceptional events.

(3C) For the purpose of reporting compliance against PM_{10} and $PM_{2.5}$ 1 day average standards, jurisdictions shall exclude monitoring data that has been determined as being directly associated with an exceptional event.

(3D) For the purpose of reporting compliance against PM_{10} and $PM_{2.5}$ 1 year average standards, jurisdictions shall include all measured data, including monitoring data that is directly associated with an exceptional event.

Note To ensure national consistency, all reporting or record-keeping referred to in subclauses 18(3A), (3B), (3C) or (3D) shall be undertaken in accordance with any procedures or methods agreed by participating jurisdictions.

[12] Schedule 1

Repeal the schedule, substitute:

Schedule 1 Pollutants

Carbon monoxide	Sulfur dioxide
Nitrogen dioxide	Lead
Photochemical Oxidants (as Ozone)	Particles (as PM_{10} and $PM_{2.5}$)

[13] Schedule 2

Repeal the schedule, substitute:

Schedule 2 Standards and Goal

Table 1: Standards for Pollutants

Column 1 Item	Column 2 Pollutant	Column 3 Averaging period	Column 4 Maximum concentration standard	Column 5 Maximum allowable exceedances
1	Carbon monoxide	8 hours	9.0 ppm	1 day a year
2	Nitrogen dioxide	1 hour 1 year	0.12 ppm 0.03 ppm	1 day a year None
3	Photochemical oxidants (as ozone)	1 hour 4 hours	0.10 ppm 0.08 ppm	1 day a year 1 day a year
4	Sulfur dioxide	1 hour 1 day 1 year	0.20 ppm 0.08 ppm 0.02 ppm	1 day a year 1 day a year None
5	Lead	1 year	0.50 $\mu g/m^3$	None
6	Particles as PM_{10}	1 day 1 year	50 $\mu g/m^3$ 25 $\mu g/m^3$	None None
7	Particles as $PM_{2.5}$	1 day 1 year	25 $\mu g/m^3$ 8 $\mu g/m^3$	None None

Table 2: Goal for Particles as $PM_{2.5}$ by 2025

Column 1 Pollutant	Column 2 Averaging period	Column 3 Maximum concentration
Particles as $PM_{2.5}$	1 day 1 year	20 µg/m^3 by 2025 7 µg/m^3 by 2025

For the purposes of this Measure the following definitions shall apply:

(1) Lead sampling must be carried out for a period of 24 hours at least every sixth day.

(2) Measurement of lead must be carried out on Total Suspended Particles (TSP) or its equivalent.

(3) In Column 3 of table 1 and Column 2 of table 2 of Schedule 2, the averaging periods are defined as follows:

- 1 hour clock hour average
- 4 hour rolling 4 hour average based on 1 hour averages
- 8 hour rolling 8 hour average based on 1 hour averages
- 1 day calendar day average
- 1 year calendar year average

(4) In Column 5 of table 1 of Schedule 2, the time periods are defined as follows:

- day calendar day during which the associated standard is exceeded
- year calendar year.

(5) All averaging periods of 8 hours or less must be referenced by the end time of the averaging period. This determines the calendar day to which the averaging periods are assigned.

(6) For the purposes of calculating and reporting 4 and 8 hour averages, the first rolling average in a calendar day ends at 1.00 am, and includes hours from the previous calendar day.

(7) The concentrations in Column 4 of table 1 and Column 3 of table 2 of Schedule 2 are the arithmetic mean concentrations.

[14] Schedule 3

Repeal the schedule, substitute:

Schedule 3 Australian Standards Methods for Pollutant Monitoring

Pollutant	Method title	Method number
Carbon monoxide	Determination of Carbon Monoxide-Direct Reading Instrumental Method	AS/NZS 3580.7.1-2011/Amdt 1-2012
Nitrogen dioxide	Determination of Oxides of Nitrogen-Chemiluminescence Method	AS/NZS 3580.5.1-2011
Photochemical oxidants (as ozone)	Determination of Ozone-Direct Reading Instrumental Method	AS/NZS 3580.6.1-2011
Sulfur dioxide	Determination of Sulfur Dioxide-Direct Reading Instrumental Method	AS/NZS 3580.4.1-2008
Lead	Determination of Suspended Particulate Matter – Particulate metals high or low volume sampler gravimetric collection – Inductively coupled plasma (ICP) spectrometric method	AS/NZS 3580.9.15:2014
	Determination of Suspended Particulate Matter – Total suspended particulate matter (TSP) - High volume sampler gravimetric method	AS/NZS 3580.9.3:2015
Particles as PM_{10}	Determination of Suspended Particulate Matter-PM_{10} High Volume Sampler with Size Selective Inlet-Gravimetric Method	AS/NZS 3580.9.6:2003
	Determination of Suspended Particulate Matter-Dichotomous sampler ($PM_{10,}$ coarse PM and $PM_{2.5)}$ – Gravimetric method	AS/NZS 3580.9.7:2009
	Determination of Suspended Particulate Matter-PM_{10} continuous direct mass method using tapered element oscillating microbalance analyser.	AS/NZS 3580.9.8-2008
	Determination of Suspended Particulate Matter-PM_{10} Low Volume Sampler-Gravimetric Method	AS/NZS 3580.9.9:2006
	Determination of Suspended Particulate Matter-PM_{10} beta attenuation monitors	AS/NZS 3580.9.11:2008/Amdt 1 :2009
Particles as $PM_{2.5}$	Determination of Suspended Particulate Matter-$PM_{2.5}$ low volume sampler-Gravimetric Method	AS/NZS 3580.9.10:2008
	Determination of Suspended Particulate Matter-$PM_{2.5}$ beta attenuation monitors	AS/NZS 3580.9.12:2013
	Determination of Suspended Particulate Matter-$PM_{2.5}$ continuous direct mass method using a tapered element oscillating microbalance monitor	AS/NZS 3580.9.13:2013
	Determination of Suspended Particulate Matter-$PM_{2.5}$ high volume sampler with size selective inlet – Gravimetric Method	AS/NZS 3580.9.14:2013

[14] Schedules 4 and 5

Repeal the schedules.