

COMMUNIQUE OF THE MINISTRY OF ENVIRONMENT, SUSTAINABLE DEVELOPMENT, AND DISASTER AND BEACH MANAGEMENT

Proposed National Environmental Standards for Ambient Air Quality and Measurement Methods

The Ministry of Environment, Sustainable Development, and Disaster and Beach Management, the enforcing agency for ambient air quality is proposing to review the Environment Protection (Standards for Air) Regulations 1998.

The Ministry is inviting views and comments as per Section 37 (5) of the Environment Protection Act on the proposed **National Environmental Standards for Ambient Air Quality and Measurement Methods** as follows:

Pollutants	Maximum Limit* ($\mu\text{g}/\text{m}^3$)	Measurement Method**	Averaging Time	Remarks
Total Suspended Particles (TSP)	50	HVS or TEOM	Annual	For HVS, an annual average for 104 measurements taken twice a week for a period of 24 hours at uniform intervals. For TEOM, the maximum value should not be exceeded
	150		24-hour	The maximum value should not be exceeded.
Particulate Matter (PM_{10})	20	Beta Attenuation or TEOM or HVS or Light scattering	Annual	For HVS, an annual average for 104 measurements taken twice a week for a period of 24 hours at uniform intervals. For Beta Attenuation or TEOM, the maximum value should not be exceeded
Particulate Matter (PM_{10})	50	Beta Attenuation or TEOM or HVS or Light scattering	24-hour	The maximum value should not be exceeded

Particulate Matter (PM _{2.5})	25	Beta Attenuation or TEOM or HVS or Light scattering	24-hour	The maximum value should not be exceeded.
Sulphur Dioxide (SO ₂)	50	Pulsed Fluorescence or FTIR or Differential Optical Absorption Spectroscopy	Annual	The maximum value should not be exceeded.
	150		24-hour	The maximum value should not be exceeded.
	350		1-hour	The maximum value should not be exceeded
	500		10-minutes	The maximum value should not be exceeded
Nitrogen Dioxide (NO ₂)	40	Chemiluminescence or FTIR or Differential Optical Absorption Spectroscopy	Annual	The maximum value should not be exceeded.
	200		1-hour	The maximum value should not be exceeded
Carbon Monoxide (CO)	10 000	Non-dispersive Infrared Spectroscopy or FTIR or Differential Optical Absorption Spectroscopy	8-hour	8-hourly values should be met 98% of the time in a year and it should not exceed 2 consecutive days.
	25 000		1-hour	The maximum value should not be exceeded
Lead (Pb)	1.5	High Volume Sampler with Atomic Absorption Spectroscopy(AAS) or Inductively Coupled Plasma Mass Spectrometry (ICPMS)	3-month	An average of at least 2 measurements per week over a period of 3 months.
Ozone (O ₃)	100	Ultraviolet photometry or FTIR or Differential Optical Absorption	1-hour	The maximum value should not be exceeded

		Spectroscopy		
Elemental Mercury	0.3	Atomic Fluorescence Spectrometry (AFS)	24-hour	The maximum value should not be exceeded

“FTIR” means Fourier Transform infrared;

“HVS” means High Volume sampler;

“TEOM” means Tapered Elemental Oscillating Microbalance.

*Measurements should be corrected to standard values of temperature and pressure at 20 °C and 101.3 kPa respectively.

**the measurement methods are those indicated or other equivalent methods as acceptable to the enforcing agency.

Note: For conversion between the two gas concentration units $\mu\text{g}/\text{m}^3$ and ppb (parts-per-billion). The Conversion formulae are based on the following equations-

$$C1 = (C2 * Mw * 298 * P)/(24.45 * T * 1013);$$

$$C2 = (C1 * 24.45 * T * 1013)/(Mw * 298 * P);$$

where-

C1 = concentration in $\mu\text{g}/\text{m}^3$;

C2 = concentration in ppb;

Mw = molecular weight of compound [g/mol];

P = absolute pressure of air [hPa];

T = temperature of air [K].

The public and relevant stakeholders are kindly requested to submit their views and comments in writing to the Director of Environment within 3 months from the date of this Notice is issued either:

- (i) By Post to: The Director of Environment
Level 2, Ken Lee Tower
Corner Barracks and St George St
Port Louis

- (ii) By email : dirdoe@govmu.org or ypathel@govmu.org

Details of the proposed standards are available on the Ministry’s website on <http://environment.govmu.org/>

Ministry of Environment, Sustainable Development, and Disaster and Beach Management

1 September 2016