

Supplementary information

Table S1 Environmental guidelines

Pollutants	Standards	Averaging time	Values ($\mu\text{g}/\text{m}^3$)	Reference
PM _{2.5}	WHO	Annual	10	(WHO, 2017; CAAQS, 2017; NAAQS, 2017; Quebec, 2018; British Columbia, 2017; Ontario, 2017)
		24 h	25	
	Canada NAAQO	Annual	10	
		24 h	28	
	USEPA-NAAQS	Annual	12	
		24 h	35	
	Provincial-Ontario	24 h	30	
	Quebec	24 h	30	
	British Columbia	Annual	8	
		24 h	25	
PM ₁₀	WHO	Annual	20	
		24 h	50	
	Canada NAAQO	24 h	25	
	USEPA-NAAQS	24 h	150	
	Provincial-Ontario	24 h	50	
	British Columbia	24 h	50	
	Utah	24 h	150	
	NO ₂	WHO	Annual	40
			1 h	200
		Canada NAAQO	Annual	100A;60D
		24 h	200A	
		1 h	400A	
USEPA-NAAQS		Annual	100	
		1 h	188 (100ppb)	
Provincial-Ontario		24 h	200	
		1 h	400	
British Columbia		Annual	60	
	1 h	188 (100ppb)		
Utah	Annual	100 (53 ppb)		
	1 h	188 (100ppb)		
SO ₂	WHO	Annual	50	
		24 h	125	
	Canada NAAQO	Annual	60A;30D	
		24 h	300A;150D;800T	
		1 h	900A;450D	
	USEPA-NAAQS	Annual	80	
		1 h	197	
	Provincial-Ontario	Annual	55	
		24 h	275	
	British Columbia	1 h	197	
Quebec	Annual	52		
Utah	Annual	60(.03ppm)		
	24 h	280(.14ppm)		
	1 h	197(75ppb)		

Note: A: Acceptable; D: Desirable; T: Toxic level

References

- WHO (2017). Ambient (outdoor) Air Quality and Health. Accessed at <http://www.who.int/mediacentre/factsheets/fs313/en/>
- Canadian Ambient Air Quality Standards (CAAQS) (2017). Accessed at <https://www.ccme.ca/en/resources/air/air/sulphur-dioxide.html>
- NAAQS (2017). Accessed at <https://www.epa.gov/sites/production/files/2015-02/documents/criteria.pdf>
- Quebec (2018). Accessed at <http://www.mdelcc.gouv.qc.ca/air/criteres/Normes-criteres-qc-qualite-atmosphere.pdf>
- British Columbia (2017). Accessed at <https://www2.gov.bc.ca/assets/gov/environment/air-land-water/air/reports-pub/aqotable.pdf>
- Ontario (2017). Accessed at <http://www.airqualityontario.com/downloads/AmbientAirQualityCriteria.pdf>