

Table 4: Emission Summary Table

Contaminant	CAS	Emission Rate (g/s)	Air Dispersion Model Used	Maximum Predicted Concentration (µg/m ³)	Averaging Period (hours)	MOE POI Limit (µg/m ³)	Limiting Effect	Limit Source	Percentage of Limit (%)
Acetaldehyde	75-07-0	4.98E-01	AERMOD v19191	3.73E+01	24	500	Health	Standard	7.5%
	75-07-0	4.98E-01		1.09E+02	0.5	500	Health	Standard	21.8%
Barium	7440-39-3	2.79E-03		1.93E-02	24	10	Health	Guideline	0.2%
Benzo(a)pyrene	50-32-8	1.32E-06		1.38E-06	8760	0.00001	Health	Standard	13.8%
	50-32-8	1.32E-06		1.38E-06	8760	0.0001	AAV	Standard	1.4%
	50-32-8	1.32E-06		5.40E-06	24	0.005	DAV	Standard	0.1%
Beryllium and compounds	7440-41-7	5.99E-06		4.42E-04	24	0.01	Health	Standard	4.4%
Cadmium and compounds	7440-43-9	5.56E-05		4.99E-04	24	0.025	Health	Standard	2.0%
Carbon Monoxide	630-08-0	1.45E+01		1.24E+02	0.5	6000	Health	Standard	2.1%
Chromium (di, tri and metallic)	7440-47-3	8.03E-05		5.41E-04	24	0.5	Health	Standard	0.1%
Dioxins, Furans and Dioxin-like PCBs	N/A(2)	6.20E-11		2.51E-10	24	0.0000001	Health	Standard	0.3%
Formaldehyde	50-00-0	4.69E-02		3.46E+00	24	65	Health	Standard	5.3%
Iron	7439-89-6	6.87E-03		2.75E-02	24	4	Health	Standard	0.7%
Lead and compounds	7439-92-1	1.97E-04		1.55E-03	24	0.5	Health	Standard	0.3%
	7439-92-1	1.97E-04		6.05E-04	720	0.2	Health	Standard	0.3%
Manganese	7439-96-5	7.26E-03		2.93E-02	24	0.4	Health	Standard	7.3%
Methanol	67-56-1	6.46E-01		4.83E+01	24	4000	Health	Standard	1.2%
Myrcene	123-35-3	3.96E-02		2.97E+00	24	15	Health	SL-JSL	19.8%
Naphthalene	91-20-3	4.28E-03		1.78E-02	24	22.5	Health	Guideline	0.1%
	91-20-3	4.28E-03		4.02E-02	0.167	50	Odour	Guideline	0.1%
Nickel and compounds	7440-02-0	6.70E-05		1.79E-04	8760	0.04	Health	Standard	0.4%
	7440-02-0	6.70E-05		1.79E-04	8760	0.4	AAV	Standard	0.04%
	7440-02-0	6.70E-05		5.16E-04	24	2	DAV	Standard	0.03%
Nitrogen Oxides	10102-44-0	2.21E+00		2.31E+01	24	200	Health	Standard	11.6%
	10102-44-0	2.21E+00		4.61E+01	1	400	Health	Standard	11.5%
Sulphur Dioxide	7446-09-5	9.62E-03		2.26E-01	24	275	Health & Vegetation	Standard	0.1%
	7446-09-5	9.62E-03		4.91E-01	1	690	Health & Vegetation	Standard	0.1%
	7446-09-5	9.62E-03		4.91E-01	1	100	Health (2023)	Standard	0.5%
	7446-09-5	9.62E-03		8.06E-02	8760	10	Vegetation (2023)	Standard	0.8%
Sulphur Trioxide	7446-11-9	2.83E-02		2.12E+00	24	5	Health	SL-JSL	42.4%
Suspended Particulate Matter	N/A(9)	2.83E+00		1.04E+02	24	120	Visibility	Standard	86.7%
α-Pinene	80-56-8	1.13E+00		8.49E+01	24	1350	Health	SL-JSL	6.3%
β-Phellandrene	555-10-2	4.72E-02		3.53E+00	24	100	Health	SL-JSL	3.5%
β-Pinene	127-91-3	1.88E-01		1.41E+01	24	1350	Health	SL-JSL	1.0%

Assessment of compliance for those substances having annual standards was determined by using the maximum annual POI concentration multiplied by 140% as advised by Technical Bulletin (O.Reg. 419/05) - Methodology for using "Assessment Values" for contaminants with Annual Air Standards.

Conversion of modelled results to averaging periods less than 1 hour was completed using the using the formula $C_0 = C_1 \times (t_1/t_0)^{0.28}$ as outlined in the ESDM Procedure Document.