

Table 3.1 Maximum Discharges from Authorized Point Sources

Source	Flow Rate (m ³ /min)	Discharge Concentration (mg/m ³)			Maximum Discharge Rate (g/s)				
		TSP	NO _x	SO ₂	TSP	PM ₁₀	PM _{2.5}	NO _x	SO ₂
Biomass Dryer 1	1,800	15	-	-	0.45	0.45 ^(a)	0.41 ^(a)	-	-
Biomass Dryer 2	1,800	15	-	-	0.45	0.45 ^(a)	0.41 ^(a)	-	-
Biomass Feedstock Handling Air Collection System (Baghouse)	460	20	-	-	0.15	0.15 ^(b)	0.11 ^(b)	-	-
Vapour Combustor	405	0.0	83.3	22.2	-	-	-	0.56	0.15
Supercritical Water Boiler 1	53.6	7.3	472.7	0.7	0.007	0.007 ^(c)	0.007 ^(c)	0.42	6×10 ⁻⁴
Supercritical Water Boiler 2	53.6	7.3	472.7	0.7	0.007	0.007 ^(c)	0.007 ^(c)	0.42	6×10 ⁻⁴
Supercritical Water Boiler 3	53.6	7.3	472.7	0.7	0.007	0.007 ^(c)	0.007 ^(c)	0.42	6×10 ⁻⁴
Supercritical Water Boiler 4	53.6	7.3	472.7	0.7	0.007	0.007 ^(c)	0.007 ^(c)	0.42	6×10 ⁻⁴
Vacuum Column Heater	9.2	7.1	71.4	0.4	0.001	0.001 ^(c)	0.001 ^(c)	0.01	6×10 ⁻⁵
Total Authorized Discharges					1.08	1.08	0.95	2.3	0.15

Notes: Flow rates and discharge concentrations are expressed at 293.15 K, 103.15 kPa, 0% moisture, actual oxygen contents.

(a) PM₁₀ and PM_{2.5} emissions are estimated using particle size fractions from Gitxsan Development Corporation 2019.

(b) PM₁₀ and PM_{2.5} emissions are estimated using particle size fractions from Pinnacle Renewable Energy Inc. 2014.

(c) All particulate matter emissions from natural gas combustion are assumed to be PM_{2.5}.