

Section L: Monitoring Data from Stack sampling

To be filled by the Environmental Laboratory.

K1.1a	Industry ID	GJS __ __ __
	Industry Name	_____
	Stack Test Report ID/No.	_____
	Stack attached to:	<input type="checkbox"/> Boiler: _____TPH <input type="checkbox"/> Thermopack: _____ U <input type="checkbox"/> Boiler and Thermopack
K1.5	Date of Sampling (DD/MM/2014)	__ __ / __ __ / 201__

		Unit of Measurement	Preferred Unit
1	Barometric Pressure (P_{bar})		mm Hg
2	Dry Molecular Weight (M_d) $M_d = 0.44 * (\%CO_2) + 0.32 * (\%O_2) + 0.28 * (\%N_2 + \%CO)$		
3	Volume of condensate (V_c) in ml		ml
4	Suction at meter (P_m)	Initial (P_{m0})	mm Hg
		Final (P_{m1})	mm Hg
5	Equivalent Vapor of Condensate (V_v) $V_v = \{ (V_c * 22.4) / 18 * 1000 \} * (T_m / 273) * \{ 760 / (P_{bar} - P_m) \}$		m^3
6	Moisture in flue gas (M%) $M\% = \{ V_v / (V_v + V_m) \} * 100$		%
7	Proportion of Water Vapor (B_{wo}) $B_{wo} = \{ V_v / (V_v + V_m) \}$		
8	Wet Molecular Weight (M_s) $M_s = M_d (1 - B_{wo}) + 18 B_{wo}$		
9	Stack Gas Velocity (U_s) $U_s = K_p * C_p * \{ (\Delta P)^{0.5} \} * \{ T_s / (P_s * M_s) \} 0.5$		m/s
10	Dry stack gas volumetric flow rate (Q_s) $Q_s = \{ 3600 * U_s * A_s * (1 - B_{wo}) \} * \{ (T_s / T_{STD}) * (P_s / P_{STD}) \}$		Nm^3/hr

Comments p1: