C01 - CREMATORY, NATURAL GAS FIRED, HUMAN REMAINS, CONTROLLED AIR

CALCULATION METHODS

Ea = Ua x EF (lbs/ton charged or lbs/mmscf natural gas)

Eh = Uh x EF (lbs/ton charged or lbs/mmscf natural gas)

NOTES:

- Control efficiencies must be included in emission factors since the calculation procedure will not refer to this data.

- Trace toxic emission factors for crematories are based on test results from an AB2588 study performed on UCSD equipment (1990).

- Emission factors for NOx, CO, SOx, TOG, and ROG are based on fuel usage and assumed to be equivalent to a small, uncontrolled, commercial boiler (AP-42 Section 1.4).

- ROG emissions are assumed to be 52% of the TOG emissions per AP-42 Section 1.4, Table 1.4-3.

- NOx, CO, TOG, and ROG factors have been adjusted for fuel BTU content per AP-42 Section 1.4.

- Use site specific particulate emissions testing if available. The default value (6.5 lbs PM10/ton charged) is based on the emission limit of 0.3 grains/dscf exhaust.

POLLUTANT	District Emission Factor	EPA REFERENCE DOCUMENT	EPA FACTOR	(UNITS)	COMMENTS
NOX	103.10	AP-42, Sect.1.4,10/96, Table 1.4-1	100	lbs/million ft3	
CO	21.65	AP-42, Sect.1.4,10/96, Table 1.4-1	21	lbs/million ft3	
SOX	0.60			lbs/million ft3	Use average SDG&E natural gas sulfur content (0.6 lbs SOx/million ft3).
TOG	5.98	AP-42, Section 1.4, 10/96, Table 1.4-3	5.8	lbs/million ft3	
ROG	2.87		48.00%	lbs/lb TOC	

POLLUTANT	District Emission Factor	EPA REFERENCE DOCUMENT	EPA FACTOR	(UNITS)	COMMENTS
TSP	6.50				Based on District emisson standard of 0.3 grains / dscf exhaust
PM10	6.50				Assumes all TSP is <PM10.
ACETALDEHYDE	1.50E-03		1.50E-03	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
ARSENIC	5.80E-04		5.80E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
BENZENE	7.20E-04		7.20E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
BERYLLIUM	2.00E-05		2.00E-05	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
CADMIUM	1.60E-04		1.60E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
CHROMIUM, NONNHEXAVALENT	3.20E-04		3.20E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
CHROMIUM, HEXAVALENT	1.90E-04		1.90E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
COPPER	4.00E-04		4.00E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
FORMALDEHYDE	4.00E-04		4.00E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
HYDROGEN CHLORIDE	8.60E-01		8.60E-01	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)

HYDROGEN FLUORIDE	7.80E-03		7.80E-03	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
LEAD	9.80E-04		9.80E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
MERCURY	4.88E-3		4.88E-3	lbs/body charged	Based on ARB CATEF (2000)
NICKEL	5.70E-04		5.70E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
PAH'S, UNSPECIFIED	5.20E-05		5.20E-05	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
SELENIUM	6.50E-04		6.50E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
TOLUENE	9.90E-03		9.90E-03	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
XYLENES	2.80E-03		2.80E-03	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
ZINC	5.20E-04		5.20E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)

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