

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

**CALCULATION METHODS**

**Annual Emissions:**  $E_a = U_a * EF$  ((lbs/ton charged or lbs/mm scf natural gas), Except for Mercury

**Hourly Emissions:**  $E_h = U_h * EF$  (lbs/ton charged or lbs/mm scf natural gas), except for Mercury

**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).
- \* Mercury emission factor is based on an average of Source Test values conducted by: (SDAPCD) and (BAAQMD).
- \* Emission factors for NOx, CO, SOx, TOG (TOC), and VOC are based on fuel usage and assumed to be equivalent to a small uncontrolled boiler, natural gas fired, 0.3-100 MMBtu/hr (AP-42 Section 1.4).
- \* AP-42 (7/98) factors have been converted into lbs/mm scf by assuming a natural gas BTU content of 1020 BTU/scf.
- \* Emission factor for TOG is the AP-42 factor for TOC
- \* 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 FACTORS (lbs/million ft3 fuel burned)	EPA REFERENCE DOCUMENT	EPA FACTOR	(UNITS)	COMMENTS
NOX	100	AP-42, Sect.1.4, 07/98, Table 1.4-1	100	lbs/million ft3	
CO	84	AP-42, Sect.1.4, 07/98, Table 1.4-1	21	lbs/million ft3	
SOX	0.6	AP-42, Sect.1.4, 07/98, Table 1.4-2	0.6	lbs/million ft3	
TOG	11	AP-42, Sect.1.4, 07/98, Table 1.4-2	11	lbs/million ft3	TOC emission factor in AP-42
VOC	5.5	AP-42, Sect.1.4, 07/98, Table 1.4-2	5.5	lbs/million ft3	

POLLUTANT	DISTRICT EMISSION FACTORS (lbs/ton charged)	EPA REFERENCE DOCUMENT	EPA FACTOR	(UNITS)	COMMENTS
TSP	6.5				Based on District emission standard of 0.3 grains / dscf exhaust (Rule 53)
PM10	6.5				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)

POLLUTANT	DISTRICT EMISSION FACTORS (lbs/ton charged)	EPA REFERENCE DOCUMENT	EPA FACTOR	(UNITS)	COMMENTS
CADMIUM	1.60E-04		1.60E-04	lbs/ton charged	Based on UCSD Medical Center AB2588 Source Testing (1990)
CHROMIUM, NONHEXAVALENT	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	2.18E-3		2.18E-3	lbs/body charged	Average of Source tests values from: (SDAPCD) and (BAAQMD)
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)

Last Updated on 04/20/2022 By M. Abuelazaim