

**B06 - BOILER, BUTANE FIRED, 10 - 100 MMBTU/HR , UNCONTROLLED**

**CALCULATION METHODS**

$E_a = U_a \times EF$  (lbs/1000 gallons)

$E_h = U_h$  (gal/hr)  $\times$  (1/1000)  $\times$  EF (lbs/1000 gallons)

**NOTES:**

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

- Assumes AP-42 Industrial Boilers represent equipment with 10-100 mmBtu capacities.

- Assumes TOC speciation profile 0003 for natural gas combustion is applicable to butane fuel for organic emissions.

POLLUTANT	District Emission Factor	EPA REFERENCE	EPA	(UNITS)	COMMENTS
	(lbs/1000 gal fuel burned)	DOCUMENT	FACTOR		
NOX	21.00	AP-42, Sect.1.5,10/96, Table 1.5-1	21.00	lbs/1000 gal	
CO	3.60	AP-42, Sect.1.5,10/96, Table 1.5-1	3.60	lbs/1000 gal	
SOX	0.016	AP-42, Sect.1.5,10/96, Table 1.5-1	0.016	lbs/1000 gal	Assume a sulfur content of 0.18 gr/100 ft3 per AP-42 Table 1.5-1(e)
TOG	0.60	AP-42, Sect.1.5,10/96, Table 1.5-1	0.60	lbs/1000 gal	
ROG	0.40	AP-42, Sect.1.5,10/96, Table 1.5-1	0.40	lbs/1000 gal	
TSP	0.60	AP-42, Sect.1.5,10/96, Table 1.5-1	0.60	lbs/1000 gal	
PM10	0.60	AP-42, Sect.1.5,10/96, Table 1.5-1	0.60	lbs/1000 gal	
ACETONE					
ARSENIC					
BARIUM					
BENZENE	2.40E-02	Using EPA VOC Profile 0003 1/90	4.00%	lb / lb TOG	= 0.60 x 0.04
BERYLLIUM					
CADMIUM					
CHLORINE					
CHROMIUM HEXAVALENT					
CHROMIUM NONHEXAVALENT					
COBALT					
COPPER					
ETHYL BENZENE					
FORMALDEHYDE	4.80E-02	Using EPA VOC Profile 0003 1/90	8.00%	lb / lb TOG	= 0.60 x 0.08
HEXANE	1.20E-02	Using EPA VOC Profile 0003 1/90	2.00%	lb / lb TOG	= 0.60 x 0.02
HYDROGEN CHLORIDE					
HYDROGEN SULFIDE					
LEAD					
MANGANESE					
MERCURY					
NAPHTHALENE					
NICKEL					

PAH'S					
SELENIUM					
TOLUENE	1.20E-02	Using EPA VOC Profile 0003 1/90	2.00%	lb / lb TOG	= 0.60 x 0.02
XYLENES					
ZINC					

*Last Updated on 8/24/99  
By D. Byrnes*