

B03 - BOILER, DISTILLATE - DIESEL FIRED, >100 MMBTU/HR, TANGENTIAL FIRING, 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.
- The EPA speciation profile failed to identify methane. VOC species are assumed to be based on ROG emissions.
- Use these default factors for distillate fuel (i.e.: diesel fuel, jet fuel, kerosene, heating oil, etc.).
- Trace metal emission factors are based on fuel sample analyses received by the District for AB2588 purposes in 1990 and 1991.

POLLUTANT	District Emission Factor	EPA REFERENCE	EPA	(UNITS)	COMMENTS
	(lbs/1000 gal fuel burned)	DOCUMENT	FACTOR		
NOX	42.00	AP-42, Sect.1.3,10/96, Table 1.3-1	42	lbs/1000 gal	
CO	5.00	AP-42, Sect.1.3,10/96, Table 1.3-1	5	lbs/1000 gal	
SOX	3.50				Assume a sulfur content of 0.05% and a fuel density of 7.0 lbs/gallon
TOG	1.04	AP-42, Sect.1.3,10/96, Table 1.3-2	1.04	lbs/1000 gal	
ROG	0.76	AP-42, Sect.1.3,10/96, Table 1.3-2	0.76	lbs/1000 gal	Assumes AP-42 Utility Boilers represent equipment >100 mmBtu/hr
TSP	7.00	AP-42, Sect.1.3,10/96, Table 1.3-1	7	lbs/1000 gal	
PM10	7.00	AP-42, Sect.1.3,10/96, Table 1.3-1	7	lbs/1000 gal	
ACETONE					
ARSENIC	7.80E-03		7.80E-03	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District
BENZENE					
BERYLLIUM					
CADMIUM	1.20E-03		1.20E-03	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District
CHLORINE					
CHROMIUM HEXAVALENT	2.00E-04		2.00E-04	lbs/1000 gal	Assumes 5% Cr to Cr+6 conversion for combustion per ARB instructions
CHROMIUM NONHEXAVALENT	3.40E-03		3.40E-03	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District
COPPER	3.60E-03		3.60E-03	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District
ETHYL BENZENE					
FORMALDEHYDE	3.70E-01	EPA VOC Speciation Profile # 0002 1/90	48.70%	lbs/lb ROG	= 0.76 x 0.487
HEXANE	1.22E-01	EPA VOC Speciation Profile # 0002 1/90	16.00%	lbs/lb ROG	= 0.76 x 0.16
HYDROGEN CHLORIDE					
HYDROGEN SULFIDE					
LEAD	4.80E-03		4.80E-03	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District
MANGANESE	1.40E-03		1.40E-03	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District

MERCURY	2.30E-03		2.30E-03	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District
NAPHTHALENE					
NICKEL	2.30E-03		2.30E-03	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District
PAH'S					
SELENIUM	9.80E-03		9.80E-03	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District
TOLUENE					
XYLENES					
ZINC	1.43E-02		1.43E-02	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District

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