

B05 - BOILER, DISTILLATE - DIESEL FIRED, < 10 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.
- 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.
- These factors are assumed to be applicable to both normal and tangential fired equipment on all distillate fuels.

POLLUTANT	District Emission Factor	EPA REFERENCE	EPA	(UNITS)	COMMENTS
	(lbs/1000 gal fuel burned)	DOCUMENT	FACTOR		
NOX	20.00	AP-42, Sect.1.3,10/96, Table 1.3-1	20	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 lbs/gallon
TOG	0.56	AP-42, Sect.1.3,10/96, Table 1.3-2	0.556	lbs/1000 gal	
ROG	0.34	AP-42, Sect.1.3,10/96, Table 1.3-2	0.34	lbs/1000 gal	Assumes AP-42 Commercial Boilers represent equipment <10 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 HEXA VALENT	2.00E-04		0.02%	lbs/1000 gal	Assumes 5% Cr to Cr+6 conversion for combustion per ARB instructions
CHROMIUM NONHEXA VALENT	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	1.66E-01	EPA VOC Speciation Profile # 0002 1/90	48.70%	lbs/lb ROG	= 0.34 x 0.487
HEXANE	5.44E-02	EPA VOC Speciation Profile # 0002 1/90	16.00%	lbs/lb ROG	= 0.34 x 0.16
HYDROGEN CHLORIDE					
HYDROGEN SULFIDE					
LEAD	4.80E-03		0.48%	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District

MANGANESE	1.40E-03		0.14%	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		1.43%	lbs/1000 gal	Based on average diesel / distillate analyses submitted to the District

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