

Emissions From Ancillary Equipment
CPV Towantico Energy, LLC

Emissions from Ancillary Equipment (tpy)

Pollutant	Auxiliary Boiler	Emergency Generator	Fire Pump
	92.4 MMBtu/hr	2206 bhp	315 kW
NO _x	9 ppmvd @ 3% O ₂	4.08 g/bhp	3.8 g/kW
	0.011 lb/MMBtu	1.37 lb/MMBtu	1.08 lb/MMBtu
	1.01 lb/hr	19.84 lb/hr	2.64 lb/hr
	2.02 TPY	2.98 TPY	0.40 TPY
CO	50 ppmvd @ 3% O ₂	0.44 g/bhp	0.9 g/kW
	0.037 lb/MMBtu	0.15 lb/MMBtu	0.26 lb/MMBtu
	3.42 lb/hr	2.14 lb/hr	0.63 lb/hr
	6.83 TPY	0.32 TPY	0.094 TPY
VOC	9.6 ppmvd @ 3% O ₂	0.11 g/bhp	0.1 g/kW
	0.0041 lb/MMBtu	0.037 lb/MMBtu	0.028 lb/MMBtu
	0.38 lb/hr	0.53 lb/hr	0.069 lb/hr
	0.75 TPY	0.08 TPY	0.010 TPY
PM ₁₀ /PM _{2.5}	N/A ppmvd @ 3% O ₂	0.03 g/bhp	0.13 g/kW
	0.007 lb/MMBtu	0.010 lb/MMBtu	0.037 lb/MMBtu
	0.65 lb/hr	0.15 lb/hr	0.09 lb/hr
	1.29 TPY	0.02 TPY	0.014 TPY
SO ₂	0.0015 lb/MMBtu	0.0015 lb/MMBtu	0.0015 lb/MMBtu
	0.14 lb/hr	0.02 lb/hr	0.0037 lb/hr
	0.28 TPY	0.003 TPY	0.0006 TPY
H ₂ SO ₄	0.00011 lb/MMBtu	0.00011 lb/MMBtu	0.00011 lb/MMBtu
	0.011 lb/hr	0.00166 lb/hr	0.00028 lb/hr
	0.02 TPY	0.0002 TPY	0.00004 TPY
Pb	4.9E-07 lb/MMBtu	7.7E-07 lb/MMBtu	7.7E-07 lb/MMBtu
	4.5E-05 lb/hr	1.1E-05 lb/hr	1.9E-06 lb/hr
	9.1E-05 TPY	1.7E-06 TPY	2.8E-07 TPY
CO ₂	116.9 lb/MMBtu	163.1 lb/MMBtu	163.1 lb/MMBtu
	10,802 lb/hr	2,354 lb/hr	400 lb/hr
	21,605 TPY	353 TPY	60 TPY
CH ₄	0.0022 lb/MMBtu	0.0066 lb/MMBtu	0.0066 lb/MMBtu
	0.2037 lb/hr	0.095 lb/hr	0.016 lb/hr
	0.41 TPY	0.0143 TPY	0.0024 TPY
N ₂ O	0.00022 lb/MMBtu	0.0013 lb/MMBtu	0.0013 lb/MMBtu
	0.0204 lb/hr	1.9E-02 lb/hr	0.00324135 lb/hr
	0.041 TPY	2.9E-03 TPY	4.9E-04 TPY
CO _{2e}	10,814 lb/hr	2,362 lb/hr	401 lb/hr
	21,627 TPY	354 TPY	60 TPY

NOTES:

Natural Gas SO₂ emissions based upon a sulfur content of 0.5 gr/100 dscf

ULSD SO₂ emissions based upon a sulfur content of 15 ppmw

Aux Boiler and Gas Heater criteria pollutant emission factors from BACT analysis

Emergency Generator criteria pollutant emission factors based on Tier 2 emission standards in 40 CFR 89.

Fire Pump criteria pollutant emission factors based on post -2009 emission standards in 40 CFR 60 Subpart IIII.

H₂SO₄ emissions assume a 5% conversion of SO₂ --> SO₃ (on a molar basis)

Fuel specific CO₂, CH₄ and N₂O emission factors from 40 CFR 98, Subpart C

Pb emission factor for ULSD from AP-42 Section 3.1