

San Joaquin Valley Air Pollution Control District

Emissions Calculations Sheets for IC Engines and Gasoline Tanks

Crop Water Use Factors

Crop	Water Use (acre-ft/acre-year)
Field Crops	2.85
Grains	1.49
Truck Crops	2.74
Deciduous Orchards	2.89
Subtropical Orchards	2.18
Vineyards	2.51

Emissions From Each Piece of Equipment (Note: Use addition sheets if necessary.)

IC Engines	Pollutants	Water Use (acre-ft/acre-year)	x	Acreage (acres)	x	Well Depth (ft)	x	Conversion Factor	=	Annual Emissions (lbs/year)
	Engine 1 NO _x	█	x	█	x	█	x	0.06037	=	█
	Engine 1 VOC	█	x	█	x	█	x	0.00525	=	█
	Engine 2 NO _x	█	x	█	x	█	x	0.06037	=	█
	Engine 2 VOC	█	x	█	x	█	x	0.00525	=	█
	Engine 3 NO _x	█	x	█	x	█	x	0.06037	=	█
	Engine 3 VOC	█	x	█	x	█	x	0.00525	=	█
	Engine 4 NO _x	█	x	█	x	█	x	0.06037	=	█
	Engine 4 VOC	█	x	█	x	█	x	0.00525	=	█

Tanks	Pollutant	Emissions Factor (lb/gal)	x	Total Annual Throughput (gal/year)	=	Annual Emissions (lbs/year)
Aboveground	VOC	0.0282	x	█	=	█
Belowground	VOC	0.0212	x	█	=	█

Total Emissions From This Equipment

Total Emissions	Pollutant	Diesel Combustion Emissions (lbs/year)	+	Natural Gas Combustion Emissions (lbs/year)	+	Gasoline Tank Emissions (lbs/year)	=	Total Annual Emissions (lbs/year)
	NO _x	█	+	█	+	N/A	=	█
	VOC	█	+	█	+	█	=	█

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Emissions Calculations Sheets for CAFOs

Dairy Cows	Pollutant	Emission Factor (lbs/head-year)	Total Number of Cows			Annual Emissions (lbs/year)
Milking Cow	VOC	21.0	x		=	
Dry Cow	VOC	11.9	x		=	
Heifer (15 – 24 month)	VOC	8.3	x		=	
Heifer (7 – 14 month)	VOC	7.2	x		=	
Heifer (4 – 6 month)	VOC	6.6	x		=	
Calf (under 3 months)	VOC	6.2	x		=	
Total						

Feedlot Cattle	Pollutant	Emission Factor (lbs/head-year)	Total Number of Cattle			Annual Emissions (lbs/year)
	VOC	11.1	x		=	

Laying Hens & Associated Birds	Pollutant	Emission Factor (lbs/head-year)	Total Number of Hens			Annual Emissions (lbs/year)
	VOC	0.05	x		=	

Broiler Chickens & Associated Birds	Pollutant	Emission Factor (lbs/head-year)	Max. # of Chickens at Any One Time	# of Days Houses are Empty	Days per Year	Annual Emissions (lbs/year)
	VOC	0.025	x		x (365 -)	÷ 365

Turkeys & Associated Birds	Pollutant	Emission Factor (lbs/head-year)	Max. # of Turkeys at Any One Time	# of Days Houses are Empty	Days per Year	Annual Emissions (lbs/year)
	VOC	0.10	x		x (365 -)	÷ 365