

1997 Air Emission Calculations

Pollutant	Allowable Rate Tons per Year	Actual Emission Tons per Year
Particulate Matter	198.59	49.96
SO ₂	5.36	0.3127
NO _x	198.72	71.4081
CO	147.09	17.7217
VOC	190.01	61.660
TRS	0	0
LEAD	0.56	0.0035
CFCs/HCFs	0	0
Other	0	0
Total HAP's (VOC)	147.39	9.4746
Total HAP's (Non-VOC)	0.25	7.4171

1997 Natural Gas Usage (MMBTU) = **1042454** MMBTU

TSP/PM10 Calculation

AP-42 factor =	0.005	lb/MMBTU
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2.606 TPY

From Fluid Bed & Rotary Dryers

(Based on Stack testing)

Stack test (#/hr) = **6.40**

= **28.032** TPY

From Cyclone Dryer

(Based on Stack testing)

Stack test (#/hr) = **5**

= **12.775** TPY

From New Cyclone Dryer (Started 9/97)

(Based on Stack testing)

5

= **3.675** TPY

From Vinyl Silos

(Based on Stack testing)

Stack test (#/hr) = **0.608**

= **2.663** TPY

From compd silos

(Based on Stack testing)

Stack test (#/hr) = **0.90**

= **3.942** TPY

Lead Calculation

Total Lead Emissions = 0.0035 TPY

HCl Calculation

Total HCl Emissions = 0.3548 TPY

Chlorine Calculation

Total Chlorine Emissions = 4.4016 TPY

Fugative Emissions:

1997 Average Well Water Flow = 1200 GPM

Assume .5ppm Residual Chlorine in Water from Water Plant:

1.3135 TPY

Emissions from Cooling Towers:

#2000lb Chlorine cylinders= 5

#150lb Chlorine cylinders= 5

10000 lb. Chlorine

750 lb. Chlorine

Assume 25% of Cl₂ fed at cooling towers is not reacted and is then emitted:

2687.5 #Cl₂/yr

1.3438 TPY

Total Fugative Chlorine Emissions = 2.6572 TPY

Total Chlorine Emitted = 7.0588 TPY

Total HAP's (Non-VOC) Emitted = 7.4171 TPY

Total = **47.3551** TPY

SO₂ Calculation

AP-42 factor = 0.0006 lb/MMBTU

0.3127 TPY

NO_x Calculation

AP-42 factor = 0.137 lb/MMBTU

71.4081 TPY

CO Calculation

AP-42 factor = 0.034 lb/MMBTU

17.7217 TPY

1997 Natural Gas Usage =

1042454 MMBTU

VOC Calculation

AP-42 factor = 0.0057 lb/MMBTU

2.971 TPY

Total VOC from Plasticizer =

40 TPY (Permitted Total)

Fugative VCM =

1.878 TPY

(Obtained from Environmental Coordinator)

VCM Stack Emissions =

7.337 TPY
(EPA Method 107)

Total VCM Emissions =

9.2146 TPY

Fugative Methanol Stack Emissions =

0.260 TPY

Total Voc Emissions =

61.660 TPY

Total HAP's (Voc) =

9.4746 TPY

Total HAP's (Non-Voc)