6.0 EMISSION CALCULATIONS

This section includes all criteria pollutant calculations.

6.1 EMISSION INVENTORY

Table 6.1-1 below shows the emission inventory for criteria pollutants. The emission inventory is based on maximum plant-wide fuel consumption of 10,400,000 standard cubic feet per year of natural gas and a total coatings mixture throughput of 359,423 gallons per year.

Table 6.1-1
Emission Inventory for Teton Sales

Source	Pollutant													
	.461 PM		.461 PM-10		100.9.8 VOC		SO_2		NO_X		CO		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Spray Booth	0.46	1.51	0.46	1.51	16.4	54.34								
Roll Coater # 1					2.07	6.84								
Roll Coater # 2					2.07	6.84								
Fan Coater # 1					19.9	65.81								
Fan Coater # 2					34.8	114.92								
Fan Coater # 3					23.10	76.23								
Fan Coater # 4					34.82	114.92								
Fan Coater # 5					19.94	65.81								
Printer # 1					2.9	4.78								
Printer # 2					2.9	9.56								
Acetone Storage Tank[a]					0	0								
T-6 Storage Tank[b]					0.002	0.009								
Oven Heaters 1-8	0.008	0.03	0.008	0.03	0.006	0.02	0.0007	0.002	0.11	0.36	0.09	0.30	5.5×10^{-7}	1.8×10^{-6}
Space Haters 1-5	0.003	0.004	0.003	0.004	0.003	0.009	0.0003	0.001	0.05	0.16	0.04	0.14	2.5×10^{-7}	8.1×10^{-7}

[a]Acetone is not a VOC
[b] Does not contain the acetone fraction

The PTE is estimated as the sum of the individual PTE of all significant emissions sources currently operating. The emission sources are:

- door spray booth, 518 Kit
- roll coater #2, 518 Kit
- fan coater #5, 518 Kit
- roll coater #1, 604 Kit
- fan coater #1, 604 Kit
- fan coater #2, 604 Kit
- fan coater #3, 604 Kit
- fan coater #4, 604 Kit
- printer #1, 604 Kit
- printer #2, 604 Kit

The types of coating applied and the equipment the coatings are applied from are (see emission calculations Section 6.6):

- Fan coaters #1 and # 5 apply a basecoat comprised of a mixture of black, white, yellow and red paint (Akzo-Nobel) with T-6 and acetone thinner.
- Fan coaters #2 and # 4 apply a white basecoat (Sherwin-Williams) with T-6 thinner.
- Fan coater #3 applies a topcoat (Akzo-Nobel) with T-6 thinner.
- The spray booth uses a white water-based enamel (Akzo-Nobel).
- The 2 roll coaters apply a burnishing high solids sealer (Akzo-Nobel) with acetone thinner.
- The 2 printers apply a variety of colored paste inks (Akzo-Nobel) with T-6 thinner.

6.2 PTE CALCULATIONS

Together in 518 Kit and 604 Kit there are three pairs of equipment that are in parallel with one another and therefore can not operate simultaneously, fan coater 2 and fan coater #3 (604 Kit), fan coater #1 and fan coater #4 (604 Kit), and fan coater #5 and roll coater #2 (518 Kit). With regards to each pair of equipment operating in parallel the PTE facility wide emissions was calculated by assuming that the piece of equipment in each pair with the worst case emissions operates 100% of the time. This way Teton Sales will be able to run the in-parallel equipment in any hours of operation (assuming the total hours do not exceed the permitted hours of operation) combination and still be in compliance. Worst case is considered the piece of equipment that emits more VOC and HAPs than the other piece of equipment. Fan coater #2, fan coater #4 and fan coater #5 give the worst case emission results. justification?

Teton Sales PTE is based on 6,600 hours of operation per year. It is assumed that the spray booth, fan coater #2, fan coater #4, fan coater #5, roll coater #1 and printer #2 will operate 100% of the time. Printer #1 will be limited to operate 50% of the time. Fan coater #1, fan coater #3 and roll coater #2 are assumed to operate 0% of the time. Table 6.1-2 depicts the facility wide PTE. Teton Sales request the following facility-wide limits, not the individual source limits.

Table 6.1-2 PTE Table for Teton Sales

Source	Pollutant													
	PM		PM-10		VOC		SO_2		NO_X		CO		Lead	
	lb/hr	ton /yr	lb/hr	ton /yr	lb/hr	ton/yr	lb/hr	ton /yr	lb /hr	ton /yr	lb /hr	ton /yr	lb/hr	ton /yr
Spray Booth	0.46	1.51	0.46	1.51	16.47	54.34								
Roll Coater # 1					2.07	6.84								
Roll Coater # 2														
Fan Coater # 1														
Fan Coater # 2					34.82	114.92								
Fan Coater # 3														
Fan Coater # 4					34.82	114.92								
Fan Coater # 5					19.94	65.81								
Printer # 1					2.9	4.78								
Printer # 2					2.9	9.56								
Acetone Storage Tank[a]														
T-6 Storage Tank[b]					0.002	0.009								
Oven Heaters 1-8	0.008	0.03	0.008	0.03	0.006	0.02	0.0007	0.002	0.11	0.36	0.09	0.30	5.5×10^{-7}	1.8×10^{-6}
Space Haters 1-5	0.003	0.004	0.003	0.004	0.003	0.009	0.0003	0.001	0.05	0.16	0.04	0.14	2.5×10^{-7}	8.1×10^{-7}
TOTAL	**0.47**	**1.55**	**0.47**	**1.55**	**112.5**	**371.2**	**0.001**	**0.003**	**0.16**	**0.52**	**0.13**	**0.44**	8×10^{-7}	2.6×10^{-6}

[a] Acetone is not a VOC
[b] Does not contain the acetone fraction

6.3 PROCESS WEIGHT

Table 6.3-1 below shows the estimated process weight rate calculations, in accordance with IDAPA 58.01.01.701.

Table 6.3-1
Process Weight Calculations[a]

Source Description	Process Weight, PW (lb/hr)	Process Weight Rate Limitations - E (lb/hr)	PM-10 Emissions - Actual (lb/hr)	In Compliance? (Y/N)
Spray Booth	191.88	1.05	0.46	Y

[a] All other emissions sources do not create particulate emissions.

$E = 0.045(PW)^{0.60}$, for PW less than 9,250 lb/hr.
E = Emission Limit

6.4 GRAIN LOADING

Tables 6.3-1 and 6.3-2 below show the estimated grain loading concentrations for natural gas and diesel in accordance with IDAPA 58.01.01.676 and 677. All calculations have been corrected to Teton Sales' facility altitude of 2,353 feet and 3 percent oxygen. All natural gas combustion equipment is in compliance with the grain loading standard.

Table 6.3-1
Grain Loading Emissions – Natural Gas

Source	PM Emission Factor (lb/scf)	Gas Volume @ 3% O_2 (dscf/MMBTU)	Combustion Volume of 1 cubic feet of gas (dscf/scf)	Grain Loading (grain/dscf)	Grain Loading Standard (grain/dscf)	Meet Grain Loading Standard?
Space Heater 1	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 2	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 3	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 4	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 5	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 6	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 7	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 8	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes

Source	PM Emission Factor (lb/scf)	Gas Volume @ 3% O_2 (dscf/MMBTU)	Combustion Volume of 1 cubic feet of gas (dscf/scf)	Grain Loading (grain/dscf)	Grain Loading Standard (grain/dscf)	Meet Grain Loading Standard?
Space Heater 1	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 2	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes

Table 6.3-2
Grain Loading Emissions – Diesel Fuel

Source	PM Emission Factor (lb/gal)	Gas Volume @ 3% O_2 (dscf/MMBTU)	Combustion Volume of 1 Gallon Fuel (dscf/gal)	Grain Loading (grain/dscf)	Grain Loading Standard (grain/dscf)	Meet Grain Loading Standard?
Space Heater 3	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 4	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes
Space Heater 5	7.6×10^{-6}	1.1×10^{-4}	11.6	4.59×10^{-3}	0.015	Yes

6.5 FUGITIVE SOURCES

Fugitive calculations include paved roads. These estimates have been included in the Tier I Forms in the application.

6.6 EMISSION CALCULATIONS

The detailed emission estimates and supporting documents are shown in the following sections for both point and fugitive sources.

TABLE A-1
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Door Coating Line -- 518 Kit Ave.
Max VOC Coating:	Akzo-Nobel White Water-Based Enamel
Coating ID:	Akzo-Nobel Product No. 6660-20W020-472
MSDS/RCR Density (lb/gal):	10.66
Hours of Operation (hr/yr):	6,600
Max. Application Rate (gal/hr):	18
Potential Gallons Applied (gal/yr):	118,800

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Butoxypropanols	5131668	0.06165	11.829	39.037	na	na	na	na
Dipropylene glycol butyl ether	29911282	0.02189	4.200	13.861	na	na	na	na
Methoxy-methyl ethoxy propanol	34590948	0.00133	0.255	0.842	na	na	na	na
Butoxyethoxyethanol	112345	0.00047	0.090	0.298	na	na	na	na
Ammonia	7664417	0.00028	na	na	na	na	0.054	1.2
1,2-Ethanediol	107211	0.00023	0.044	0.146	0.044	0.146	0.044	0.846
Glycol ethers	na	0.00017	0.033	0.108	0.033	0.108	na	na
Free Formaldehyde, Maximum	50000	0.00007	0.013	0.044	0.013	0.044	0.013	0.00051
TOTAL (Using Mass Fractions from RCR)[a]		0.08581	16.47	54.34	0.090	0.30	na	na
TOTAL (Using VOC Fraction from RCR)[b]		0.08609	16.52	54.51	na	na	na	na

[a]Only non-exempt VOC, HAP and TAP components are summed.
[b]Takes into account all VOC (exempt, non-exempt and water).

TABLE A-2
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Fan Coater # 5 -- 518 Kit Ave.
Max VOC Coating:	Solvent-Based Laquer Basecoat + "T-6" Thinner + Acetone Thinner
Coating ID:	Akzo-Nobel Moulding Basecoat, (Product No. 450-W020-337, 450-Y020-338, 450-R020-339, 450-B020-340) + "T-6" Thinner + Sunoco Acetone
Density (lb/gal):	9.5 (mixture)
Hours of Operation (hr/yr):	6,600
Max. Application Rate* (gal/hr):	6.41
Potential Gallons Applied (gal/yr):	42,306

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Toluene	108883	0.1916	11.67	38.50	11.67	38.50	11.67	25
Methyl ethyl ketone	78933	0.063	3.84	12.66	3.84	12.66	3.84	39.3
Methyl isobutyl ketone	108101	0.0081	0.49	1.63	0.49	1.63	0.49	13.7
Xylene	1330207	0.0164	1.00	3.30	1.00	3.30	1.00	29
Methanol	67561	0.0054	0.33	1.09	0.33	1.09	0.33	17.3
Acetone	67641	0.2115	na	na	na	na	12.88	119
Isopropanol	67630	0.0363	2.21	7.29	na	na	2.21	65.3
Ethyl benzene	100414	0.0031	0.19	0.62	0.19	0.62	0.19	21.75
Aliphatic hydrocarbon	64742887	0.00071	0.04	0.14	na	na	na	na
Aromatic solvent	na	0.00065	0.04	0.13	na	na	na	na
1,2,4-Trimethylbenzene	95636	0.00033	0.02	0.07	na	na	na	na
Aliphatic hydrocarbon	64742898	0.00027	0.02	0.05	na	na	na	na
Aliphatic solvent	na	0.000047	0.003	0.01	na	na	na	na
1,2-Propanediol	57556	0.000039	0.002	0.01	na	na	na	na
Isobutanol	78831	0.000039	0.002	0.01	na	na	na	na
Cumene	98828	0.0015	0.09	0.30	0.09	0.30	0.09	16.3
TOTAL (Using Mass Fractions from RCR)[a]		0.327	19.94	65.81	17.60	58.10	na	na
TOTAL (Using VOC Fraction from RCR)[b]		0.64	39.02	128.75	na	na	na	na

*Fan Coater #5 has a basecoat throughput of 4.37 gal/hr. The basecoat is thinned with T-6 at a rate of 2.04 gal/hr, resulting in an overall throughput of 6.41 gal mixture/hr.

[a]Only non-exempt VOC, HAP and TAP components are summed.

[b]Takes into account all VOC (exempt, non-exempt and water).

TABLE A-3
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Roll Coater # 2 -- 518 Kit Ave.
Max VOC Coating:	High Solids Burnishing Sealer + Acetone Thinner
Coating ID:	Akzo-Nobel Product No. 422-F020-25 and Sunoco Acetone
Density (lb/gal):	7.27 (mixture)
Hours of Operation (hr/yr):	6,600
Max. Application Rate* (gal/hr):	1.818
Potential Gallons Applied (gal/yr):	11,999

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Toluene	108883	0.0882	1.166	3.847	1.17	3.85	1.17	25
Methyl ethyl ketone	78933	0.0396	0.523	1.727	0.52	1.73	0.52	39.3
Isopropanol	67630	0.0125	0.165	0.545	na	na	0.17	65.3
Aliphatic Hydrocarbon	na	0.0099	0.131	0.432	na	na	na	na
Butyl acetate	123864	0.0045	0.059	0.196	na	na	0.06	46.7
Isobutanol	78831	0.0011	0.015	0.048	na	na	na	na
Ethyl alcohol	64175	0.0008	0.011	0.035	na	na	na	na
Methyl isobutyl ketone	108101	0.0001	0.001	0.004	0.001	0.004	0.001	13.7
Ethyl acetate	141786	0.00005	0.001	0.002	na	na	0.001	93.3
Methyl alcohol	67561	0.00004	0.001	0.002	0.001	0.002	0.001	17.3
Acetone	67641	0.7071	na	na	na	na	9.346	119
TOTAL (Using Mass Fractions from MSDS)[a]		0.1568	2.07	6.84	1.69	5.58	na	na
TOTAL (Using VOC Fraction from MSDS)[b]		0.8641	11.42	37.69	na	na	na	na

*Roll Coater #2 has a High Solids Burnishing Sealer throughput of 0.414 gal/hr. The Sealer is thinned with Acetone at a rate of 1.414 gal/hr giving an overall throughput of 1.818 gal/hr (mixture).

[a]Only non-exempt VOC, HAP and TAP components are summed.

[b]Takes into account all VOC (exempt, non-exempt and water).

TABLE A-4
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Fan Coater # 1 -- 518 Kit Ave.
Max VOC Coating:	Solvent Based Laquer Basecoat + "T-6" Thinner + Acetone Thinner
Coating ID:	Akzo-Nobel White Moulding Basecoat, Product No. 450-W020-337 + "T-6" Thinner + Sunoco Acetone
Density (lb/gal):	9.5 (mixture)
Hours of Operation (hr/yr):	6,600
Max. Application Rate* (gal/hr):	6.41
Potential Gallons Applied (gal/yr):	42,306

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Toluene	108883	0.1916	11.67	38.50	11.67	38.50	11.67	25
Methyl ethyl ketone	78933	0.063	3.84	12.66	3.84	12.66	3.84	39.3
Methyl isobutyl ketone	108101	0.0081	0.49	1.63	0.49	1.63	0.49	13.7
Xylene	1330207	0.0164	1.00	3.30	1.00	3.30	1.00	29
Methanol	67561	0.0054	0.33	1.09	0.33	1.09	0.33	17.3
Acetone	67641	0.2115	na	na	na	na	12.88	119
Isopropanol	67630	0.0363	2.21	7.29	na	na	2.21	65.3
Ethyl benzene	100414	0.0031	0.19	0.62	0.19	0.62	0.19	21.75
Aliphatic hydrocarbon	64742887	0.00071	0.04	0.14	na	na	na	na
Aromatic solvent	na	0.00065	0.04	0.13	na	na	na	na
1,2,4-Trimethylbenzene	95636	0.00033	0.02	0.07	na	na	na	na
Aliphatic hydrocarbon	64742898	0.00027	0.02	0.05	na	na	na	na
Aliphatic solvent	na	0.000047	0.003	0.01	na	na	na	na
1,2-Propanediol	57556	0.000039	0.002	0.01	na	na	na	na
Isobutanol	78831	0.000039	0.002	0.01	na	na	na	na
Cumene	98828	0.0015	0.09	0.30	0.09	0.30	0.09	16.3
TOTAL (Using Mass Fractions from RCR)[a]		0.327	19.94	65.81	17.60	58.10	na	na
TOTAL (Using VOC Fraction from RCR)[b]		0.641	39.02	128.75	na	na	na	na

*Fan Coater #1 has a basecoat throughput of 4.37 gal/hr. The basecoat is thinned with T-6 at a rate of 2.04 gal/hr, resulting in an overall throughput of 6.41 gal mixture/hr.

[a]Only non-exempt VOC, HAP and TAP components are summed.

[b]Takes into account all VOC (exempt, non-exempt and water).

TABLE A-5
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Fan Coater # 2 -- 604 Kit Ave.
Max VOC Coating:	Solvent-Based White Paint Basecoat + "T-6" Thinner
Coating ID:	Sherwin-Williams White Moulding Basecoat, Product No. P65WH70 + "T-6" Thinner
Density (lb/gal):	8.17 (mixture)
Hours of Operation (hr/yr):	6,600
Max. Application Rate* (gal/hr):	7.13
Potential Gallons Applied (gal/yr):	47,058

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Toluene	108883	0.1846	10.75	35.49	10.75	35.49	10.75	25
Methyl ethyl ketone	78933	0.1693	9.86	32.54	9.86	32.54	9.86	39.3
Xylene	1330207	0.0077	0.45	1.48	0.45	1.48	0.45	29
Ethanol	64175	0.0539	3.14	10.36	na	na	na	na
Isopropanol	67630	0.0154	0.90	2.96	na	na	0.90	65.3
Ethyl 3-Ethoxypropionate	763699	0.0308	1.79	5.92	na	na	na	na
V.M. & P. Naphtha	64742090	0.0692	4.03	13.30	na	na	na	na
Isobutyl Acetate	110190	0.0308	1.79	5.92	na	na	1.79	46.7
Kaolin (Respirable Dust)	1332587	0.0077	na	na	na	na	na[a]	0.133
Calcium Carbonate (Dust)	471341	0.0077	na	na	na	na	na	na
Titanium Dioxide (Dust)	13463677	0.1154	na	na	na	na	na	na
Ethyl Benzene	100414	0.0015	0.09	0.29	0.09	0.29	0.09	21.75
Methanol	67561	0.0138	0.80	2.65	0.80	2.65	0.80	17.3
Acetone	67641	0.0807	na	na	na	na	4.70	119
Methyl isobutyl ketone	108101	0.0208	1.21	4.00	1.21	4.00	1.21	13.7
TOTAL (Using Mass Fractions from MSDS)[b]		0.5978	34.82	114.92	23.17	76.45	na	na
TOTAL (Using VOC Fraction from MSDS)[c]		0.6792	39.56	130.56	na	na	na	na

*Fan Coater #2 has a white basecoat throughput of 5.19 gal/hr. The white basecoat is thinned with T-6 at a rate of 1.94 gal/hr giving an overall throughput of 7.13 gal mixture/hr.

[a]According to the Sherwin-Williams MSDS Sheet for this product (Page 4), "This coating may contain materials classified as nuisance particulates (Listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film". Teton Sates does sand or abrade the moulding after coating, and therefore no Kaolin emissions occure.

[b]Only non-exempt VOC, HAP and TAP components are summed.

[c]Takes into account all VOC (exempt, non-exempt and water).

TABLE A-6
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Fan Coater # 3 -- 604 Kit Ave.
Max VOC Coating:	Solvent Based Satin Lacquer Topcoat + "T-6" Thinner
Coating ID:	Akzo-Nobel Satin Lacquer Topcoat, Product No. 400-F020-117 + "T-6" Thinner
Density lb/gal:	7.81 (mixture)
Hours of Operation (hr/yr):	6,600
Max. Application Rate* (gal/hr):	4.5
Potential Gallons Applied (gal/yr):	29,700

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Toluene	108883	0.421	14.80	48.83	14.80	48.83	14.80	25
Methyl ethyl ketone	78933	0.0632	2.22	7.33	2.22	7.33	2.22	39.3
Isopropanol	67630	0.0389	1.37	4.51	na	na	1.37	65.3
Aliphatic Hydrocarbon	na	0.0265	0.93	3.07	na	na	na	na
Xylene	1330207	0.0013	0.05	0.15	0.05	0.15	0.05	29
Ethylbenzene	100414	0.00034	0.01	0.04	0.01	0.04	0.01	21.75
2-Butoxyethanol	111762	0.00033	0.01	0.04	0.01	0.04	0.01	8
Isobutyl acetate	110190	0.0072	0.25	0.84	na	na	0.25	46.7
Acetone	67641	0.2716	na	na	na	na	9.55	119
Methyl isobutyl ketone	108101	0.0591	2.08	6.85	2.08	6.85	2.08	13.7
Methanol	67561	0.0394	1.38	4.57	1.38	4.57	1.38	17.3
TOTAL (Using Mass Fractions from MSDS)[a]		0.657	23.10	76.23	20.55	67.81	na	na
TOTAL (Using VOC Fraction MSDS)[b]		0.942	33.11	109.27	na	na	na	na

*Fan Coater #3 has a satin lacquer topcoat throughput of 1.5 gal/hr. The satin topcoat is thinned with T-6 at a rate of 3 gal/hr givng an overall throughput of 4.5 gal mixture/hr.

[a]Only non-exempt VOC, HAP and TAP compnents are summed.

[b]Takes into account all VOC (exempt, non-exempt and water).

TABLE A-7
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Fan Coater # 4 -- 604 Kit Ave.
Max VOC Coating:	Solvent Based White Paint Basecoat + "T-6" Thinner
Coating ID:	Sherwin-Williams White Moulding Basecoat, Product No. P65WH70 + "T-6" Thinner
Density (lb/gal):	8.17 (mixture)
Hours of Operation (hr/yr):	6,600
Max. Application Rate* (gal/hr):	7.13
Potential Gallons Applied (gal/yr):	47,058

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Toluene	108883	0.1846	10.75	35.49	10.75	35.49	10.75	25
Methyl ethyl ketone	78933	0.1693	9.86	32.54	9.86	32.54	9.86	39.3
Xylene	1330207	0.0077	0.45	1.48	0.45	1.48	0.45	29
Ethanol	64175	0.0539	3.14	10.36	na	na	na	na
2-Propanol	67630	0.0154	0.90	2.96	na	na	na	na
Ethyl 3-Ethoxypropionate	763699	0.0308	1.79	5.92	na	na	na	na
V.M. & P. Naphtha	64742090	0.0692	4.03	13.30	na	na	na	na
Isobutyl Acetate	110190	0.0308	1.79	5.92	na	na	na	na
Kaolin (Respirable Dust)	1332587	0.0077	na	na	na	na	na[a]	0.133
Calcium Carbonate (Dust)	471341	0.0077	na	na	na	na	na	na
Titanium Dioxide (Dust)	13463677	0.1154	na	na	na	na	na	na
Ethyl Benzene	100414	0.0015	0.09	0.29	0.09	0.29	0.09	21.75
Methanol	67561	0.0138	0.80	2.65	0.80	2.65	0.80	17.3
Acetone	67641	0.0807	na	na	na	na	4.70	119
Methyl isobutyl ketone	108101	0.0208	1.21	4.00	1.21	4.00	1.21	13.7
TOTAL (Using Mass Fractions from MSDS)[b]		0.5978	34.82	114.92	23.17	76.45	na	na
TOTAL (Using VOC Fraction from MSDS)[c]		0.6792	39.56	130.56	na	na	na	na

*Fan Coater #4 has a white basecoat throughput of 5.19 gal/hr. The white basecoat is thinned with T-6 at a rate of 1.94 gal/hr giving an overall throughput of 7.13 gal mixture/hr.

[a]According to the Sherwin-Williams MSDS Sheet for this product (Page 4), "This coating may contain materials classified as nuisance particulates (Listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film". Teton Sales does sand or abrade the moulding after coating, and therefore no Kaolin emissions occure.

[b]Only non-exempt VOC, HAP and TAP components are summed.

[c]Takes into account all VOC (exempt, non-exempt and water).

TABLE A-8
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Roll Coater # 1 -- 604 Kit Ave.
Max VOC Coating:	High Solids Burnishing Sealer + Acetone Thinner
Coating ID:	Akzo Product No. 422-F020-25 and Sunoco Acetone
Density (lb/gal):	7.27 (mixture)
Hours of Operation (hr/yr):	6,600
Max Application Rate* (gal/hr):	1.818
Potential Gallons Applied (gal/yr):	11,999

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Toluene	108883	0.0882	1.166	3.847	1.17	3.85	1.17	25
Methyl ethyl ketone	78933	0.0396	0.523	1.727	0.52	1.73	0.52	39.3
Isopropanol	67630	0.0125	0.165	0.545	na	na	0.17	65.3
Aliphatic Hydrocarbon	na	0.0099	0.131	0.432	na	na	na	na
Butyl acetate	123864	0.0045	0.059	0.196	na	na	0.06	46.7
Isobutanol	78831	0.0011	0.015	0.048	na	na	na	na
Ethyl alcohol	64175	0.0008	0.011	0.035	na	na	na	na
Methyl Isobutyl ketone	108101	0.0001	0.001	0.004	0.001	0.004	0.001	13.7
Ethyl acetate	141786	0.00005	0.001	0.002	na	na	0.001	93.3
Methyl alcohol	67561	0.00004	0.001	0.002	0.001	0.002	0.001	17.3
Acetone	67641	0.7071	na	na	na	na	9.35	119
TOTAL (Using Mass Fractions from MSDS)[a]		0.157	2.07	6.84	1.69	5.58	na	na
TOTAL (Using VOC Fraction from MSDS)[b]		0.864	11.42	37.69	na	na	na	na

*Roll Coater #2 has a High Solids Burnishing Sealer throughput of 0.414 gal/hr. The Sealer is thinned with Acetone at a rate of 1.414 gal/hr giving an overall throughput of 1.818 gal mixture/hr

[a]Only non-exempt VOC, HAP and TAP components are summed.

[b]Takes into account all VOC (exempt, non-exempt and water).

TABLE A-9
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Printer # 1 -- 604 Kit Ave.
Max VOC Coating:	Colored Paste Ink + T-6 thinner + Acetone + Glycol Ether
Coating ID:	Akzo-Nobel Colored Paste Ink (Product No. 30-0020-97, 20-D020-278, 30-A020-98, 30-R020-92, 20-Y0-213, 20-B0-216, 20-R0-214, 20-D020-329, 30-W020-94, 932-C020-514 and 04X-50-599) + T-6 Thinner + Sunoco Acetone + Van Waters & Rogers Glycol Ether.
Density (lb/gal):	8.22 (mixture)
Hours of Operation (hr/yr):	3300
Max. Application Rate (gal/hr):	0.828
Potential Gallons Applied (gal/yr):	2,732

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Toluene	108883	0.0025	0.017	0.028	0.017	0.028	0.017	25
Acetone	67641	0.1301	na	na	na	na	0.885	119
Methyl isobutyl ketone	108101	0.0252	0.172	0.283	0.172	0.283	0.172	13.7
Methanol	67561	0.0161	0.110	0.181	0.110	0.181	0.110	17.3
Glycol ether	111762	0.0410	0.279	0.461	na	na	na	na
Butyl acetate	123864	0.2703	1.840	3.036	na	na	1.840	47.3
Isopropanol	67630	0.0267	0.182	0.300	na	na	0.182	65.3
Butanol	71363	0.0049	0.033	0.055	na	na	0.033	10
Isobutanol	78831	0.0051	0.035	0.057	na	na	na	na
Isobutyl acetate	110190	0.0049	0.033	0.055	na	na	0.033	46.7
Mixed hydrocarbons / Ligroine	8032324	0.00280	0.019	0.031	na	na	na	na
Mineral Spirits	64742478	0.0049	0.033	0.055	na	na	na	na
Petroleum Hydrocarbon / Mineral Spirits	8052413	0.0050	0.034	0.056	na	na	na	na
Xylene	1330207	0.0024	0.016	0.027	0.016	0.027	0.016	29
Aliphatic hydrocarbons / Naphtha	64742898	0.0049	0.033	0.055	na	na	na	na
Ethyl benzene	100414	0.0001	0.0004	0.001	0.0004	0.001	0.0004	29
2-Butoxyethanol	111762	0.0011	0.008	0.013	0.008	0.013	0.008	8
Ethanol	64175	0.0039	0.026	0.043	na	na	na	na
Ethyl acetate	141786	0.0039	0.026	0.043	na	na	0.026	93.3
TOTAL (Using Mass Fractions from MSDS)[a]		0.4257	2.897	4.78	0.322	0.532	na	na
TOTAL (Using VOC Fraction from MSDS)[b]		0.7146	4.861	8.021	na	na	na	na

[a]Only non-exempt VOC, HAP and TAP components are summed.
[b]Takes into account all VOC (exempt, non-exempt and water).

TABLE A-10
POTENTIAL TO EMIT
VOC and HAP

Emissions Source:	Printer # 2 -- 604 Kit Ave.
Max VOC Coating:	Colored Paste Ink + T-6 thinner + Acetone + Glycol Ether
Coating ID:	Akzo-Nobel Colored Paste Ink (Product No. 30-0020-97, 20-D020-278, 30-A020-98, 30-R020-92, 20-Y0-213, 20-B0-216, 20-R0-214, 20-D020-329, 30-W020-94, 932-C020-514 and 04X-50-599) + T-6 Thinner + Sunoco Acetone + Van Waters & Rogers Glycol Ether.
Density (lb/gal):	8.22 (mixture)
Hours of Operation (hr/yr):	6600
Max. Application Rate (gal/hr):	0.828
Potential Gallons Applied (gal/yr):	5,465

Volatile Component	CAS No.	Max Wt. Fraction	VOC Emissions (lb/hr)	VOC Emissions (T/yr)	HAP Emissions (lb/hr)	HAP Emissions (T/yr)	TAP Emissions (lb/hr)	EL (lb/hr)
Toluene	108883	0.0025	0.017	0.056	0.017	0.056	0.017	25
Acetone	67641	0.1301	na	na	na	na	0.885	119
Methyl isobutyl ketone	108101	0.0252	0.172	0.566	0.172	0.566	0.172	13.7
Methanol	67561	0.0161	0.109	0.361	0.109	0.361	0.109	17.3
Glycol ether	111762	0.0410	0.279	0.921	na	na	na	na
Butyl acetate	123864	0.2703	1.839	6.069	na	na	1.839	47.3
Isopropanol	67630	0.0267	0.182	0.599	na	na	0.182	65.3
Butanol	71363	0.0049	0.033	0.110	na	na	0.033	10
Isobutanol	78831	0.0051	0.035	0.114	na	na	na	na
Isobutyl acetate	110190	0.0049	0.033	0.110	na	na	0.033	46.7
Mixed hydrocarbons / Ligroine	8032324	0.0028	0.019	0.063	na	na	na	na
Mineral Spirits	64742478	0.0049	0.033	0.110	na	na	na	na
Petroleum Hydrocarbon / Mineral Spirits	8052413	0.0050	0.034	0.112	na	na	na	na
Xylene	1330207	0.0024	0.016	0.053	0.016	0.053	0.016	29
Aliphatic hydrocarbons / Naphtha	64742898	0.0049	0.033	0.110	na	na	na	na
Ethyl benzene	100414	0.0001	0.000	0.001	0.000	0.001	0.0004	29
2-Butoxyethanol	111762	0.0011	0.008	0.025	0.008	0.025	0.008	8
Ethanol	64175	0.0039	0.026	0.087	na	na	na	na
Ethyl acetate	141786	0.0039	0.026	0.087	na	na	0.026	93.3
TOTAL (Using Mass Fractions from MSDS)[a]		0.4257	2.896	9.556	0.322	1.064	na	na
TOTAL (Using VOC Fraction from MSDS)[b]		0.7146	4.861	16.042	na	na	na	na

[a]Only non-exempt VOC, HAP and TAP components are summed.
[b]Takes into account all VOC (exempt, non-exempt and water).

Door Coating Line Controlled PM Emissions

Emission Source	Product	Max. Application Rate (gal/hr)	Density of Mixture (lb/gal)[b]	Wt. Fraction Solids (lb PM/lb Mixture)[b]	Transfer Efficiency (%)	Control Efficiency (%)	PM Emissions (lb/hr)	PM Emissions (T/yr)[a]
Door Coating Line Spray Booth	White Water-Based Enamel (Product No. 660-20W020-472)	18	10.66	0.4774	50	99	0.46	1.51

[a]Based on 6600 hr/yr.

[b]From MSDS/RCR

Door Coating Line Uncontrolled PM Emissions

Emission Source	Product	Max. Application Rate (gal/hr)	Density of Mixture (lb/gal)	Wt. Fraction Solids (lb PM/lb Mixture)	Transfer Efficiency (%)	PM Emissions (lb/hr)	PM Emissions (T/yr)[d]
Door Coating Line Spray Booth	White Water-Based Enamel (Product No. 660-20W020-472)	18	10.66	0.4774	50	45.80	200.61

[d]Based on 8760 hr/yr.

NAAQS Parameters

Source Type	Point
Emission Rate (g/s)[a]	0.126
Stack Height (m)	7.925
Stack Inside Diameter (m)	0.42
Stack Exit Velocity (m/s)	85.1619
Stack Gas Exit Temperature (K)	293
Ambient Air Temperature (K)	293
Receptor Height (m)	0
Urban/Rural	Rural
Building Height (m)	4.88
Min Horiz Building Height (m)	24.38
Max Horiz Building Height (m)	38.4

[a]Emission rate based on a 1ug/m^3 concentration.

Controlled Emissions for PM/PM-10 NAAQS Compliance

SCREEN3 Concentration (ug/m^3/lb/hr)	Persistence Factors (24 hr/annual)	PM Emission Rate (lb/hr)	24-hr Average (ug/m^3)	Annual Average (ug/m^3)	24-hr/annual Background Concentrations	Total PM 24-hr Average (ug/m^3)	Total PM Annual Average
10.20	0.4/0.08	0.46	1.88	0.38	130/36.7	131.88	37.08

Total PM 24 hr/annual Average =
(Screen3 Concentration*Persistance Factor*PM Emission Rate)+Background Concentration

Controlled Emissions for Formaldehyde NAAQS Compliance

SCREEN3 Concentration (ug/m^3/lb/hr)	Persistence Factor	Formaldehyde Emission Rate (lb/hr)[b]	Total 24-hr Concentration (ug/m^3)	AAC 24-hr Limit (ug/m^3)
10.20	0.4	0.013	0.05	77

[b]From Paint Booth Emission Table

Total 24 hr Concentration =
(Screen3 Concentration*Persistance Factor*PM Emission Rate)

Criteria Inventory for Natural Gas Combustion - Oven 518

1. Enter the heat capacity, in MMbtu/hr, of the source:

$$Heat := 0.860 \frac{10^6\ Btu}{hr}$$

2. Enter the Gross Caloric Value (GCV) - Also termed the "high heating value" of the combustion fuel.

$$GCV := 1020 \quad \frac{10^6\ Btu}{10^6\ SCF}$$

3. Enter the emissions mass flow rate desired; If lb/hr is desired enter 1 or if T/yr is desired enter 4.38 (8760 hr/2000 lb).

$$FlowRate := 1$$

4. MathCad will use a matrix to calculate emissions.

$$M := \begin{bmatrix} \frac{Heat}{GCV} \\ FlowRate \end{bmatrix} \qquad M = \begin{bmatrix} 8.431 \cdot 10^{-4} \\ 1 \end{bmatrix}$$

Table No. 1 ~ Criteria Pollutant Emission Factors (lb/10^6 scf)

$PM := 7.6$ $\quad SO_2 := 0.6$ $\quad Lead := 0.005$

$NO_x := 100$ $\quad CO := 84$

Criteria Pollutant Emissions Inventory (lb/hr)

$E_{PM} := PM \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{PM} = 6.408 \cdot 10^{-3}$

$E_{NOx} := NO_x \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{NOx} = 0.084$

$E_{SO2} := SO_2 \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{SO2} = 5.059 \cdot 10^{-4}$

$E_{CO} := CO \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{CO} = 0.071$

$E_{Lead} := Lead \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{Lead} = 4.216 \cdot 10^{-6}$

Criteria Inventory for Natural Gas Combustion - Oven 604

1. Enter the heat capacity, in MMbtu/hr, of the source:

$$Heat := 0.760 \frac{10^6\ Btu}{hr}$$

2. Enter the Gross Caloric Value (GCV) - Also termed the "high heating value" of the combustion fuel.

$$GCV := 1020 \quad \frac{10^6\ Btu}{10^6\ SCF}$$

3. Enter the emissions mass flow rate desired; If lb/hr is desired enter 1 or if T/yr is desired enter 4.38 (8760 hr/2000 lb).

$$FlowRate := 1$$

4. MathCad will use a matrix to calculate emissions.

$$M := \begin{bmatrix} \frac{Heat}{GCV} \\ FlowRate \end{bmatrix} \qquad M = \begin{bmatrix} 7.451 \cdot 10^{-4} \\ 1 \end{bmatrix}$$

Table No. 1 ~ Criteria Pollutant Emission Factors (lb/10^6 scf)

$PM := 7.6$ $\quad SO_2 := 0.6$ $\quad Lead := 0.005$

$NO_x := 100$ $\quad CO := 84$

Criteria Pollutant Emissions Inventory (lb/hr)

$E_{PM} := PM \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{PM} = 5.663 \cdot 10^{-3}$

$E_{NOx} := NO_x \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{NOx} = 0.075$

$E_{SO2} := SO_2 \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{SO2} = 4.471 \cdot 10^{-4}$

$E_{CO} := CO \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{CO} = 0.063$

$E_{Lead} := Lead \cdot (M_{0,0} \cdot M_{1,0})$ $\quad E_{Lead} = 3.725 \cdot 10^{-6}$

Grainloading Emissions for Natural Gas - Teton

Emission factors given in AP-42 are generally accepted as conservative estimates. Even a conservative estimate of emissions from natural gas combustion results in an approximated grain loading well below the standard of 0.015 gr/dscf. Therefore, as long as natural gas is the only form of fuel being combusted in the space heaters and oven heaters then the permittee is in compliance with the grain loading standard.

1. Correct the flue gas volume to the altitude of Caldwell, Idaho:

   Altitude := 2353 ft

   Subtract altitude pressure correction factor (inches of Hg) from standard atmospheric pressure at sea level to obtain the corrected flue gas pressure.

   $\text{Correction} := 0.01 \cdot \frac{\text{Altitude}}{10}$ Correction = 2.353 inch of Hg

   StandAtmPress := 29.92 inch of Hg

   CorrFluePress := StandAtmPress – Correction

   CorrFluePress = 27.567 inch of Hg

2. Using the ideal gas law and knowing that n, R and T will remain constant:

   Where,

   V_2 = The gas volume corrected to altitude (dscf)

   $V_1 := 8715.3 \frac{\text{dscf}}{\text{MMBTU}}$ The known gas volume

   P_1 := StandAtmPress The pressure of the know gas volume (29.92 inchs of Hg)

   P_2 := CorrFluePress The pressure of the corrected gas volume

   $V_2 := P_1 \cdot \frac{V_1}{P_2}$ $V_2 = 9.459 \cdot 10^3 \frac{\text{dscf}}{\text{MMBTU}}$

3. For 3% oxygen, using a standard correction ratio as presented in 40 CFR 60, Appendix A, Method 19,

   Where,

   F_2 = The gas volume corrected to 3% oxygen

   $F_1 := V_2$ The altitude corrected flue gas volume

$$F_2 := F_1 \cdot \frac{20.9}{20.9 - 3.0} \qquad F_2 = 1.104 \cdot 10^4 \quad \frac{dscf}{MMBTU}$$

4. Determine the combustion volume of one scf.

Where, ∎

CombustVol = The volume of flue gas created by the combustion one cubic foot of natural gas

$$HeatCH4 := 0.001050 \quad \frac{MMBTU}{scf}$$

$$CombustVol := HeatCH4 \cdot F_2$$

$$CombustVol = 11.597 \quad \frac{dscf}{scf}$$

5. Determine the grain loading per dscf of flue gas.

Where, ∎

GrainLoading = The amount of grains per dscf.

$$PoundsPM := 0.0000076 \quad lb\ PM/scf$$

$$GrainsPM := 7000 \quad \frac{Grains}{lb \cdot PM}$$

$$GrainLoading := \frac{PoundsPM \cdot GrainsPM}{CombustVol}$$

$$GrainLoading = 4.587 \cdot 10^{-3} \quad \frac{Grains}{dscf} < 0.015 \quad \frac{Grains}{dscf}$$ IN COMPLIANCE

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Teton Sales Acetone
City:	
State:	
Company:	
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	9.00
Diameter (ft):	8.00
Liquid Height (ft):	9.00
Avg. Liquid Height (ft):	7.00
Volume (gallons):	3,384.12
Turnovers:	4.00
Net Throughput (gal/yr):	13,536.48
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft):	0.00
Slope (ft/ft) (Cone Roof):	0.00

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Boise, Idaho (Avg Atmospheric Pressure = 13.28 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Acetone	All	52.81	46.88	58.74	50.94	2.4260	2.0674	2.8346	58.0800			58.08	Option 2: A=7.117, B=1210.595, C=229.664

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Acetone	45.41	87.45	132.86

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Teton Sales T-6
City:	
State:	
Company:	
Type of Tank:	Horizontal Tank
Description:	

Tank Dimensions

Shell Length (ft):	10.00
Diameter (ft):	6.00
Volume (gallons):	2,200.00
Turnovers:	6.50
Net Throughput (gal/yr):	14,300.00
Is Tank Heated (y/n):	N
Is Tank Underground (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Boise, Idaho (Avg Atmospheric Pressure = 13.28 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

80 mmHg VP = 1.55 lb/in²

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Acetone	All	52.81	46.88	58.74	50.94								
Acetone						1.2400	1.0493	1.4591	58.6801			72.11	Option 2: A=7.117, B=1210.595, C=229.664
Methyl alcohol						2.4260	2.0674	2.8346	58.0800	0.3300	0.7934	58.08	Option 2: A=7.117, B=1210.595, C=229.664
Methyl isobutyl ketone						1.1457	0.9421	1.3859	32.0400	0.0500	0.0568	32.04	Option 2: A=7.897, B=1474.08, C=229.13
Toluene						0.1644	0.1322	0.2029	100.2000	0.1200	0.0195	100.20	Option 2: A=6.672, B=1168.4, C=191.9
						0.2629	0.2166	0.3174	92.1300	0.5000	0.1303	92.13	Option 2: A=6.954, B=1344.8, C=219.48

	MW	mol % = wt%/MW	at 21°C Vapor Pressure	Partial Pressure = VP × mol%
Toluene 50 wt%	92.13 g/mol	54	23.07 mm	8.74
MIK 9 wt%	100.16	9	15	0.95
Methanol 6 wt%	32	19	102.87	13.8
Acetone 35 wt%	58.08	60	192.9	81.6
				105.07 mmHg

= 2.03 psi at 21°C

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Acetone	24.77	58.34	83.12
Methyl alcohol	1.41	3.31	4.72
Methyl isobutyl ketone	0.48	1.14	1.62
Toluene	3.23	7.60	10.83
Acetone	19.66	46.29	65.94