

FESOP '11 TOTAL

Table 1. Selected Monthly and Annual Production Variables.

Variable	MONTHLY VARIABLES												Cumulative Annual	Comments
	January	February	March	April	May	June	July	August	September	October	November	December		
Resin Production, lb/mo	4138188	3523827	4847471	4378846	4169523	4545664	4002272	4890167	5745310	5680674	4495924	3762049	54179914	Permit limit is 250,000,000 lb/yr
% Styrene in Resin	37	37	37	37	37	37	37	37	37	37	37	37	37	Permit application used 37%
% Water in Reactor Byproducts	0	0	0	0	0	0	0	0	0	0	0	0	0	Permit application used 0%
Average Reactor Yield, %	88	88	88	88	88	88	88	88	88	88	88	88	88	Permit application used 88%
Natural Gas Usage, Therms/mc	54057	48861	53892	48360	54779	54882	53437	55955	53695	55472	49464	38710	621563	1994 gas usage was 1,228,992 therms
Natural Gas Usage, MMCF	5	5	5	5	5	5	5	5	5	5	5	4	59	1994 gas usage was 117 MMCF
Destruction Efficiency (%)	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	Based on Stack Test Data
Drum Usage per month	3349	1980	3139	3087	3058	3289	2365	2455	3026	3113	3277	2807	34945	1994 usage based on 144,000 drums

FESOP '12 TOTAL

Table 2. Calculated Emissions at AOC/Kathleen for 2012 Using the Format of the 1996 FESOP (Data Table 2. Continued

Emission Unit	Source ID	Contents	Cumulative Annual Usage, lb	Cumulative Annual Throughput, gal/yr	Tank Turnovers per year, N	Turnover Factor, Kn	Vapor Pressure, psia	Working Loss, lb/yr	Standing Loss, (Constant), lb/yr	Total Loss, lb/yr	ANNUAL EMISSIONS, TONS/YR							
											Styrene	HAP	VOC	NOx	SOx	CO	PM	PM10
001 - Non-NSPS Tanks	FPST-1	Resin	1061627	108885	6.4	1.000	0.1152	31.1	29.3	60	0.030	0.030	0.030	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-2	Resin	1061627	108885	6.4	1.000	0.1152	31.1	29.3	60	0.030	0.030	0.030	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-3	Resin	1061627	108885	6.4	1.000	0.1152	31.1	29.3	60	0.030	0.030	0.030	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-4	Resin	1061627	108885	6.4	1.000	0.1152	31.1	29.3	60	0.030	0.030	0.030	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-5	Resin	1061627	108885	6.4	1.000	0.1152	31.1	29.3	60	0.030	0.030	0.030	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-6	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-7	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-8	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-9	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-10	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-11	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-12	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-13	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-14	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-15	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-16	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-17	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	FPST-18	Resin	495430	50813	6.4	1.000	0.1152	14.5	12.0	27	0.013	0.013	0.013	0	0	0	0	0
001 - Non-NSPS Tanks	Propylene Glycol	P. G.	1457028	168443	8.5	1.000	0.005	1.5	1.3	3	0.000	0.000	0.001	0	0	0	0	0
001 - Non-NSPS Tanks	Mixed Glycols and Monomers	MGM	1693752	181150	12.6	1.000	0.005	1.3	1.3	3	0.000	0.000	0.001	0	0	0	0	0
001 - Non-NSPS Tanks	Isopropyl Alcohol	IPA	0	0	0.0	1.000	0.788	0.0	0.0	0	0.000	0.000	0.000	0	0	0	0	0
001 - Non-NSPS Tanks	Butyl Alcohol	B. A.	0	0	0.0	1.000	0.939	0.0	0.0	0	0.000	0.000	0.000	0	0	0	0	0
001 - Non-NSPS Tanks	Diethylene Glycol	DEG	1344892	146184	3.0	1.000	0.005	1.8	1.9	4	0.000	0.000	0.002	0	0	0	0	0
001 - Non-NSPS Tanks	Styrene No. 1	Styrene	3514329	462412	19.2	1.000	0.1445	165.6	78.4	244	0.122	0.122	0.122	0	0	0	0	0
001 - Non-NSPS Tanks	Styrene No. 2	Styrene	3514329	462412	19.2	1.000	0.1445	165.6	78.4	244	0.122	0.122	0.122	0	0	0	0	0
001 - Non-NSPS Tanks	Styrene No. 3	Styrene	1890959	248810	19.3	1.000	0.1445	89.1	51.7	141	0.070	0.070	0.070	0	0	0	0	0
001 - Non-NSPS Tanks	Propylene Carbonate	P. C.	0	0	0.0	1.000	0.0029	0.0	0.0	0	0.000	0.000	0.000	0	0	0	0	0
001 - Non-NSPS Tanks	Refined DCPD	DCPD	3077131	384641	7.7	1.000	0.0434	7.9	1.3	9	0.000	0.000	0.005	0	0	0	0	0
001 - Non-NSPS Tanks	Ethylene Glycol	E. G.	637034	68132	3.4	1.000	0.005	0.5	1.3	2	0.000	0.000	0.001	0	0	0	0	0
001 - NSPS Tanks	FPST-19	Resin	2794535	286619	6.4	1.000	0.1152	81.8	62.0	144	0.072	0.072	0.072	0.000	0.000	0.000	0.000	0.000
001 - NSPS Tanks	FPST-20	Resin	2794535	286619	6.4	1.000	0.1152	81.8	62.0	144	0.072	0.072	0.072	0.000	0.000	0.000	0.000	0.000
											0.782	0.782	0.792	0	0	0	0	0
002 - Equip. Vented to Oxidizer	Reactors; Thin Tanks, MT5, FPST 21 & 22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.011	0.011	0.018	0.536	0.002	0.133	0.052	0.052
002 - Filter Bag Processing	Filter Bag Processing Area Vented to T/O	N/A	5520	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.008	0.008	0.008	0	0	0	0	0
											0.019	0.019	0.026	0.536	0.002	0.133	0.052	0.052
003 - Misc. Combustion Sources	Miscellaneous Stacks	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000	0.000	0.027	0.979	0.006	0.206	0.117	0.117
											0.000	0.000	0.027	0.979	0.006	0.206	0.117	0.117
005 - Mixing/Holding Tanks	Mixing Tank No. 1	Resin	2433345	270372	441.4	0.235	0.1152	208.5	5.4	214	0.107	0.107	0.107	0	0	0	0	0
005 - Mixing/Holding Tanks	Mixing Tank No. 2	Resin	2433345	270372	441.4	0.235	0.1152	208.5	5.4	214	0.107	0.107	0.107	0	0	0	0	0
005 - Mixing/Holding Tanks	Mixing Tank No. 3	Resin	4112288	456921	276.2	0.275	0.1152	258.7	9.1	268	0.134	0.134	0.134	0	0	0	0	0
005 - Mixing/Holding Tanks	Mixing Tank No. 4	Resin	4112288	456921	276.2	0.275	0.1152	258.7	9.1	268	0.134	0.134	0.134	0	0	0	0	0
005 - Mixing/Holding Tanks	Mixing Tank No. 6	Resin	2944448	327161	365.8	0.249	0.1152	221.6	10.7	232	0.116	0.116	0.116	0	0	0	0	0
005 - Mixing/Holding Tanks	Mixing Tank No. 7	Resin	2944448	327161	365.8	0.249	0.1152	221.6	10.7	232	0.116	0.116	0.116	0	0	0	0	0
005 - Mixing/Holding Tanks	Mixing Tank No. 8	Resin	1725532	191726	605.4	0.216	0.1144	183.1	6.3	189	0.095	0.095	0.095	0	0	0	0	0
005 - Mixing/Holding Tanks	Hockmeyer Mixing Tank No. 1	Resin	1167840	129760	864.2	0.201	0.1144	167.0	5.6	173	0.086	0.086	0.086	0	0	0	0	0
005 - Mixing/Holding Tanks	Hockmeyer Mixing Tank No. 2	Resin	0	0	0.0	0.000	0	0.0	0.0	0	0.000	0.000	0.000	0	0	0	0	0
005 - Mixing/Holding Tanks	GHI Mixing Tank	Resin	0	0	0.0	0.000	0	0.0	0.0	0	0.000	0.000	0.000	0	0	0	0	0
005 - Mixing/Holding Tanks	All Tanks	E. G.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000	0.002	0.002	0	0	0	0	0
005 - Mixing/Holding Tanks	All Tanks	DBE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000	0.000	0.007	0	0	0	0	0
005 - Mixing/Holding Tanks	All Tanks	MicroAdds	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000	0.000	0.008	0	0	0	0	0
											0.895	0.897	0.913	0	0	0	0	0
006 - Phthalic Anhydride Tank	Phthalic Anhydride	P. A.	1233450	96363	2.3	1.000	0.193	65.6	12.0	78	0.000	0.039	0.000	0	0	0	0.039	0.039
006 - NSPS Tanks	Maleic Anhydride	M. A.	4503140	413132	8.3	1.000	0.193	27.9	9.0	37	0.000	0.018	0.000	0.000	0.000	0.000	0.018	0.018
											0.000	0.057	0.000	0.000	0.000	0.000	0.057	0.057
007 - Fuel Oil Tanks	No.2 Fuel Oil Storage Tank	No.2 F.O.	0	0	0.0	1.000	0.0103	0.0	2.3	2	0.000	0.000	0.001	0	0	0	0	0
007 - Fuel Oil Tanks	Fire Pump Diesel Tank No. 1	No.2 F.O.	0	0	0.0	1.000	0.0144	0.0	0.5	1	0.000	0.000	0.000	0	0	0	0	0
007 - Fuel Oil Tanks	Fire Pump Diesel Tank No. 2	No.2 F.O.	0	0	0.0	1.000	0.0144	0.0	0.5	1	0.000	0.000	0.000	0	0	0	0	0
007 - Fuel Oil Tanks	Sump Pump Diesel Tank	No.2 F.O.	0	0	0.0	1.000	0.0144	0.0	0.3	0	0.000	0.000	0.000	0	0	0	0	0
											0.000	0.000	0.002	0	0	0	0	0
008 - Misc. Gaseous Fugitives	Maintenance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000	0.005	0.054	0	0	0	0	0
008 - Misc. Gaseous Fugitives	Facility Piping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.800	1.960	2.390	0	0	0	0.160	0.160
008 - Misc. Gaseous Fugitives	Product Loading (LB Resin Produced)	N/A	26014811	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.234	0.234	0.234	0	0	0	0	0
008 - Misc. Gaseous Fugitives	Tanker Truck Cleanout Activities	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.340	0.340	0.340	0	0	0	0	0
008 - Misc. Gaseous Fugitives	Micro-Additives: MMA	N/A	5035	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0.398	0.398	0	0	0	0	0
008 - Misc. Gaseous Fugitives	Micro-Additives: DEA	N/A	4210	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0.004	0.004	0	0	0	0	0
008 - Misc. Gaseous Fugitives	Micro-Additives: DMA	N/A	4875	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0.017	0.017	0	0	0	0	0
008 - Misc. Gaseous Fugitives	Micro-Additives: Astrocure AR-5, AR-8	N/A	38686	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0.044	0.044	0	0	0	0	0
008 - Misc. Gaseous Fugitives	Micro-Additives: Cobalt, Manganese, etc.	N/A	34452	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0.087	0	0	0	0	0
008 - Misc. Gaseous Fugitives	Micro-Additives: Other/Miscellaneous	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.006	0.011	0.091	0	0	0	0	0
											2.380	3.013	3.658	0.000	0.000	0.000	0.160	0.160
009 - Misc. Particulate Fugitives	Fumed Silica Powder	N/A	155531	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0.07776529	0.07776529
009 - Misc. Particulate Fugitives	Talc: A-0005, ATH, Polyfill	N/A	1517890	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0.758945	0.758945
009 - Misc. Particulate Fugitives	Road Dust	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0.2611887	

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	January	February	March	April	May	June	July	August	September	October	November	December			
Resin Production, lb/mo	5462252	4300977	5642876	5213266	5395441	0	0	0	0	0	0	0	0	26014811	Permit limit is 250,000,000 lb/yr
% Styrene in Resin	37	37	37	37	37	37	37	37	37	37	37	37	37	37	Permit application used 37%
% Water in Reactor Byproducts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Permit application used 0%
Average Reactor Yield, %	88	88	88	88	88	88	88	88	88	88	88	88	88	88	Permit application used 88%
Natural Gas Usage, Therms/mc	58169	48767	53871	54611	59809	0	0	0	0	0	0	0	0	275226	1994 gas usage was 1,228,992 therms
Natural Gas Usage, MMCF	6	5	5	5	6	0	0	0	0	0	0	0	0	26	1994 gas usage was 117 MMCF
Destruction Efficiency (%)	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	99.99900	Based on Stack Test Data
Drum Usage per month	2880	2290	2373	3544	2845	0	0	0	0	0	0	0	0	13932	1994 usage based on 144,000 drums

6/14/2012
AOC LAKELAND, FL

	Resin Production Pounds	MONTHLY EMISSIONS, TONS/MO							
		Styrene	HAP	VOC	NOx	SOx	CO	PM	PM10
JUNE '11	4,545,664	0.39	0.52	0.59	0.30	0.00	0.07	0.24	0.21
JULY '11	4,002,272	0.38	0.49	0.56	0.29	0.00	0.07	0.21	0.18
AUGUST '11	4,890,167	0.41	0.48	0.56	0.31	0.00	0.07	0.28	0.24
SEPTEMBER '11	5,745,310	0.43	0.55	0.62	0.30	0.00	0.07	0.37	0.33
OCTOBER '11	5,680,674	0.42	0.56	0.63	0.31	0.00	0.07	0.30	0.26
NOVEMBER '11	4,495,924	0.39	0.99	1.06	0.27	0.00	0.06	0.23	0.19
DECEMBER '11	3,762,049	0.37	0.45	0.52	0.21	0.00	0.05	0.21	0.17
JANUARY '12	5,462,252	0.42	0.50	0.57	0.32	0.00	0.07	0.27	0.23
FEBRUARY '12	4,300,977	0.39	0.55	0.62	0.27	0.00	0.06	0.25	0.21
MARCH '12	5,642,876	0.43	0.56	0.64	0.30	0.00	0.07	0.27	0.23
APRIL '12	5,213,266	0.41	0.55	0.64	0.30	0.00	0.07	0.32	0.28
MAY '12	5,395,441	0.42	0.52	0.60	0.33	0.00	0.07	0.27	0.23
12 MONTH TOTAL	59,136,870	4.87	6.73	7.63	3.50	0.02	0.78	3.23	2.75
PERMIT LIMITS/YEAR	250,000,000	9.32	17.85	20.01	46.47	0.20	10.69	17.82	15.80