EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 8758

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Emission Rates*	Source	Air Contaminant		<u>Emission</u>
Point No. (1)	Name(2)	Name		lb/hr
TPY **				
F-400	Fugitives (4)	VOC	13.05	57.18
401	Cat Supp Dehydrator	PM ₁₀ VOC	0.01 0.40	0.01 0.03
402	Cat Blow Tank	PM ₁₀	0.01	0.01
403	Storage Vessel	PM ₁₀	0.01	0.01
413	Cat Fdr RX44	PM ₁₀	0.01	0.01
415	Cat Fdr RX45	PM ₁₀	0.01	0.01
423	Prod. Conveying Filter	PM ₁₀ TSP VOC	0.01 0.03 (18)	0.01 0.11 (18)
424	Prod. Conveying Filter	PM ₁₀ TSP VOC	0.01 0.03 (18)	0.01 0.11 (18)
429A	Analyzer	VOC	0.36	0.43
429B	Analyzer	VOC	0.36	0.43
429C	Analyzer	VOC	0.67	0.80
429D	Analyzer	VOC	0.67	0.80

${\tt EMISSION} \ {\tt SOURCES} \ {\tt -MAXIMUM} \ {\tt ALLOWABLE} \ {\tt EMISSION} \ {\tt RATES}$

Emission Rates*	Source	Air Contaminant	<u>Emis</u>	sion_
Point No. (1)	Name(2)	Name	lb/hr	
TPY **				
429E	Analyzer	VOC	0.36	0.43
429F	Analyzer	VOC	0.36	0.43
612-F5959	TNPPTANK	VOC	0.02	0.01
612-F6640A	OMS/Peroxide Tank	VOC	0.04	0.01
612-F6640B	OMS/Peroxide Tank	VOC	0.04	0.01
612-F4706	Diesel Tank	VOC	0.02	0.01
641A	Analyzer	VOC	0.07	0.08
642A	Analyzer	VOC	1.84	2.21
642B	Analyzer	VOC	1.84	2.21

642C	Analyzer	VOC	0.01	0.01
642D	Analyzer	VOC	0.01	0.01
642E	Analyzer	VOC	0.01	0.01
642F	Analyzer	VOC	1.30	1.56
642G	Analyzer	VOC	0.01	0.01
642H	Analyzer	VOC	0.01	0.01
643	Analyzer	VOC	0.13	0.57

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant	,	<u>Emission</u>
Point No. (1)	Name(2)	Name		lb/hr
<u>TPY ** </u>				
645	Surge Silo	PM ₁₀	0.01	0.01
	TSP	VOC 0.50	111.38 2.07	162.00
	101	TSP	0.50	2.07
646A	Filter Receiver	PM ₁₀	0.27	0.16
		TSP	0.27	0.16
647A	Storage Silo	PM ₁₀	0.01	0.01
		TSP	0.26	0.49
648	Additive Vacuum	PM ₁₀	0.01	0.01
		TSP	0.01	0.04
649	Additive Vacuum	PM ₁₀ TSP	0.01 0.01	0.01 0.04
650	Spin Drier 4A	TSP	1.33	3.62

		VOC	(18)	(18)
651	Spin Drier 4B	TSP VOC	(21) (18)	(21) (18)
652	Product Silo	PM ₁₀ TSP VOC	0.01 0.25 (18)	0.02 1.02 (18)
653	Product Silo	PM ₁₀ TSP VOC	0.01 0.25 (18)	0.02 1.02 (18)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant		<u>Emission</u>
Point No. (1) TPY **	Name(2)	Name		lb/hr
654AB	L4A Flo-Triator	PM ₁₀ TSP VOC	0.02 1.17 (18)	0.08 4.71 (18)
655AB	L4B Flo-Triator	PM ₁₀ TSP VOC	0.02 1.17 (18)	0.08 4.71 (18)
656	Line 4A Railcar Loadout Filter	TSP PM ₁₀ VOC	0.03 0.01 (18)	0.02 0.01 (18)
657	Line 4B Railcar Loadout Filter	TSP PM ₁₀ VOC	(7) 0.01 (18)	(7) 0.01 (18)
662	Surge Silo	PM ₁₀ VOC TSP	(19) (18) (19)	(19) (18) (19)

663	Surge Silo	PM ₁₀ VOC TSP	(19) (18) (19)	(19) (18) (19)
664	Surge Silo	PM ₁₀ VOC TSP	(19) (18) (19)	(19) (18) (19)
665	Line 5 Loadout Surge Vessel	VOC	(18)	(18)
666	Line 5 Loadout Surge Vessel	VOC	(18)	(18)
667	Line 5 Prefill Bin	VOC	(18)	(18)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant		<u>Emission</u>
Point No. (1)	Name(2)	Name		lb/hr
TPY **				
668	Line 5 Prefill Bin	VOC	(18)	(18)
669	Line 5 Prefill Bin	VOC	(18)	(18)
670	Line 5 Prefill Bin	VOC	(18)	(18)
671	Line 5 Prefill Bin	VOC	(18)	(18)
672	Line 5 Prefill Bin	VOC	(18)	(18)
673	Line 5 Prefill Bin	VOC	(18)	(18)
674	Line 5 Prefill Bin	VOC	(18)	(18)
675	Line 6 Loadout Surge Vessel	VOC	(18)	(18)
676	Line 6 Loadout Surge Vessel	VOC	(18)	(18)
677	Line 6 Prefill Bin	VOC	(18)	(18)

678	Line 6 Prefill Bin	VOC	(18)	(18)
679	Line 6 Prefill Bin	VOC	(18)	(18)
680	Line 6 Prefill Bin	VOC	(18)	(18)
681	Line 6 Prefill Bin	VOC	(18)	(18)
682	Line 6 Prefill Bin	VOC	(18)	(18)
683	Line 6 Prefill Bin	VOC	(18)	(18)

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EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant		<u>Emission</u>
Point No. (1)	Name(2)	Name		lb/hr
TPY **				
684	Line 6 Prefill Bin	VOC	(18)	(18)
685	Storage Silo	PM ₁₀ TSP	(20) (20)	(20) (20)
686	Seed Silo	PM ₁₀ TSP VOC	0.01 0.38 (18)	0.01 0.05 (18)
687	Feed Hopper	PM ₁₀ TSP VOC	0.01 0.01 (18)	0.01 0.02 (18)
688	Feed Hopper	PM ₁₀ TSP VOC	0.01 0.01 (18)	0.01 0.02 (18)
689	L5 Product Silo	PM ₁₀ TSP VOC	0.01 0.45 (18)	0.05 1.81 (18)
690	L5 Product Silo	PM ₁₀	0.01	0.06

		TSP VOC	0.45 (18)	1.81 (18)
691	L5 Product Silo	PM ₁₀ TSP VOC	(8) (8) (18)	(8) (8) (18)
692	L5 Product Silo	PM ₁₀ TSP VOC	(9) (9) (18)	(9) (9) (18)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant		<u>Emission</u>
Point No. (1)	Name(2)	Name		lb/hr
TPY **				
693	Line 5 and 6 Vacuum System Filter	TSP PM ₁₀	0.04 0.01	0.17 0.01
694	Line 4A/4B Vacuum System Filter	TSP PM ₁₀	0.03 0.01	0.14 0.01
695	Sample Pot	TSP VOC	4.01 (18)	0.55 (18)
696	Sample Pot	TSP VOC	4.01 (18)	0.55 (18)
697	Sample Pot	TSP VOC	1.99 (18)	0.55 (18)
698	Sample Pot	TSP VOC	1.99 (18)	0.55 (18)
699	Sample Pot	TSP VOC	1.99 (18)	0.01 (18)
721	Flare Air-Assist (10)	VOC	270.52	257.79

		CO	181.32	138.56
		NO _x	25.75	43.23
723	Steam Generator	VOC	0.02	0.11
		NO_x	0.45	1.97
		CO	0.38	1.66
		SO_2	0.01	0.01
		PM_{10}	0.03	0.15

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant	<u> </u>	<u>Emission</u>
Point No. (1)	Name(2)	Name	[]	b/hr
TPY **				
723A	Boiler	VOC CO	0.03 0.49	0.14 2.16
		NO _x	0.59	2.58
		PM_{10}	0.04	0.20
		SO ₂	0.01	0.02
800	Fugitives (4)	VOC	4.25	18.61
801	Cat Supp Dehydrator	PM ₁₀	0.01	0.01
802	Cat Blow Tank	PM ₁₀	0.01	0.01
803	Storage	PM ₁₀	0.01	0.01
813	Cat Feeder RX60	PM ₁₀	0.01	0.01
817	Reactor 60	VOC	19.90	0.20
819A	Analyzer	VOC	0.36	0.43
819B	Analyzer	VOC	0.36	0.43
819C	Analyzer	VOC	0.36	0.43

819D	Analyzer	VOC	0.36	0.43
819E	Analyzer	VOC	0.36	0.43
821	Prod. Conveying	PM ₁₀ TSP VOC	0.01 0.03 (18)	0.01 0.11 (18)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant	<u>E</u>	<u>mission</u>
Point No. (1)	Name(2)	Name	lk	o/hr
TPY **				
845	Surge Silo	PM ₁₀ VOC TSP	(19) (18) (19)	(19) (18) (19)
848	Additive Vacuum	PM ₁₀ TSP	0.60 0.60	2.43 2.43
849AB	Additive Vacuum	PM ₁₀ TSP	0.01 0.02	0.01 0.08
850	Spin Drier	TSP VOC	(21) (18)	(21) (18)
851	Spin Drier	TSP VOC	(21) (18)	(21) (18)
854	Elutriator	PM ₁₀ TSP VOC	0.03 0.88 (18)	0.11 3.62 (18)
855	Elutriator	PM ₁₀ TSP VOC	0.03 0.88 (18)	0.12 3.62 (18)

858	Flare-Ground	VOC CO NO _x	(10) (10) (10)	(10) (10) (10)
861	Reactor 44	VOC	20.0	0.20
862	Reactor 45	VOC	20.0	0.20
863	Hexene Storage	VOC	0.47	0.88

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant	<u>E</u> 1	mission_
Point No. (1)	Name(2)	Name	lb,	/hr
TPY **	•			
866	Surge Silo	PM ₁₀ VOC TSP	0.01 (18) 0.69	0.04 (18) 2.87
867	Surge Silo	PM ₁₀ VOC TSP	(11) (18) (11)	(11) (18) (11)
868	Surge Silo	PM ₁₀ VOC TSP	(11) (18) (11)	(11) (18) (11)
869	Surge Silo	PM ₁₀ VOC TSP	(11) (18) (11)	(11) (18) (11)
870	Surge Silo	PM ₁₀ VOC TSP	(11) (18) (11)	(11) (18) (11)
871	Filter Receiver	PM ₁₀ TSP VOC	0.01 0.57 (18)	0.01 2.38 (18)
872	Filter Receiver	PM ₁₀	0.01	0.01

		TSP VOC	0.57 (18)	2.38 (18)
873	Filter Receiver	PM_{10}	0.01	0.01
		TSP	0.57	2.38
		VOC	(18)	(18)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant	<u>E</u>	<u>Emission</u>
Point No. (1)	Name(2)	Name	lk	o/hr
TPY **				
877	Additive Vacuum	PM ₁₀ TSP	0.01 0.02	0.01 0.08
878	Product Silo	PM ₁₀ TSP VOC	(8) (8) (18)	(8) (8) (18)
879	Product Silo	PM ₁₀ TSP VOC	(9) (9) (18)	(9) (9) (18)
884	Feed Silo	PM ₁₀ TSP VOC	0.01 0.62 (18)	0.04 2.61 (18)
885	Feed Silo	PM ₁₀ TSP	0.04 0.04	0.07 0.07
886	Feed Silo	PM ₁₀ TSP VOC	(12) (12) (18)	(12) (12) (18)
887	Feed Silo	PM ₁₀ TSP	(20) (20)	(20) (20)
888	Feed Silo	PM ₁₀	(20)	(20)

		TSP	(20)	(20)
889	Feed Silo	PM ₁₀ TSP VOC	0.01 0.62 (18)	0.04 2.61 (18)
890	Feed Silo	PM ₁₀ TSP	(13) (13)	(13) (13)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant	<u>E</u>	mission_
Point No. (1)	Name(2)	Name	lb.	/hr
TPY **	•			
891	Feed Silo	PM ₁₀ TSP VOC	(14) (14) (18)	(14) (14) (18)
892	Feed Silo	PM ₁₀ TSP	(20) (20)	(20) (20)
893	Feed Silo	PM ₁₀ TSP	(20) (20)	(20) (20)
900	Filter Receiver	PM ₁₀ TSP VOC	0.01 0.26 (18)	0.01 0.04 (18)
902	Storage	PM ₁₀ TSP	0.08 0.08	0.06 0.06
910	Feed Silo	PM ₁₀ TSP VOC	0.01 0.32 (18)	0.01 1.34 (18)
911	Feed Silo	PM ₁₀ TSP VOC	(15) (15) (18)	(15) (15) (18)
912	Feed Silo	PM ₁₀	(20)	(20)

		TSP	(20)	(20)
913	Feed Silo	PM ₁₀ TSP	0.01 0.04	0.01 0.04
922	Storage Silo	PM ₁₀ TSP	0.01 0.01	0.01 0.04

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant		<u>Emission</u>
Point No. (1)	Name(2)	Name		lb/hr
<u>TPY **</u>				
923	Storage Silo	PM ₁₀ TSP	0.01 0.01	0.01 0.04
924	Hold-Up Bin	VOC	(18)	(18)
925	Product Silo	PM ₁₀ TSP VOC	(6) (6) (18)	(6) (6) (18)
926	Product Silo	PM ₁₀ TSP VOC	(6) (6) (18)	(6) (6) (18)
927	Filter Receiver	PM ₁₀ TSP VOC	0.01 0.45 (18)	0.01 0.13 (18)
928	L4B Scalperator	PM ₁₀ TSP VOC	0.01 0.86 (18)	0.01 3.38 (18)
929	Product Silo	PM ₁₀ TSP VOC	(6) (6) (18)	(6) (6) (18)
930	Feed Silo	PM ₁₀ TSP	0.01 0.32	0.01 1.34

		VOC	(18)	(18)
931	Feed Silo	PM ₁₀ TSP VOC	(17) (17) (18)	(17) (17) (18)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant		<u>Emission</u>
Point No. (1)	Name(2)	Name		lb/hr
<u>TPY **</u>				
932	Feed Silo	PM ₁₀ TSP	(16) (16)	(16) (16)
933	Feed Silo	PM ₁₀ TSP	(20) (20)	(20) (20)
942	Storage Silo	PM ₁₀ TSP	0.01 0.01	0.01 0.04
943	Storage Silo	PM ₁₀ TSP	0.01 0.01	0.01 0.04
944	Hold-Up Bin	VOC	(18)	(18)
945	Product Silo	PM ₁₀ TSP VOC	(5) (5) (18)	(5) (5) (18)
946	Product Silo	PM ₁₀ TSP VOC	(5) (5) (18)	(5) (5) (18)
947	Product Silo	PM ₁₀ TSP VOC	(5) (5) (18)	(5) (5) (18)
948	L4A Scalperator	PM ₁₀ TSP VOC	0.02 0.86 (18)	0.06 3.38 (18)

949	Filter Receiver	PM ₁₀	0.01	0.01
		TSP	0.45	0.13
		VOC	(18)	(18)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant	<u>.</u>	<u>Emission</u>
Point No. (1)	Name(2)	Name		b/hr
TPY **				_
950	Dust Collector	PM_{10} TSP	0.01 0.17	0.01 0.71
953	Sampler	TSP VOC	0.05 (18)	0.01 (18)
954	Sampler	TSP VOC	0.05 (18)	0.01 (18)
955	Hold-Up Bin	VOC	(18)	(18)
956	Hold-Up Bin	VOC	(18)	(18)
957	Hold-Up Bin	VOC	(18)	(18)
958	Hold-Up Bin	VOC	(18)	(18)
959	Sample Hopper	TSP VOC	10.39 (18)	0.01 (18)
960	Sample Hopper	TSP VOC	10.39 (18)	0.01 (18)
961	Sample Hopper	TSP VOC	5.20 (18)	0.01 (18)
962	Sample Hopper	TSP VOC	5.20 (18)	0.01 (18)
963	Reclaim System	PM_{10}	0.01	0.01

TSP 0.01 0.02 VOC (18) (18)

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EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Emission Rates*	Source	Air Contaminant	<u> </u>	<u>Emission</u>	
Point No. (1)	Name(2)	Name	l	lb/hr	
TPY **					
970	Storage Silo	PM ₁₀ TSP	(20) (20)	(20) (20)	
973	Surge Silo	TSP PM ₁₀ VOC	0.03 0.01 (18)	0.11 0.01 (18)	
974	Vacuum Filter Receiver	TSP PM ₁₀	0.09 0.01	0.19 0.01	
976	Boiler	VOC NO_x CO SO_x PM_{10}	0.03 0.59 0.49 0.01 0.04	0.14 2.58 2.16 0.02 0.20	
980	Emergency Generator	VOC NO_x CO SO_2 PM_{10}	1.09 13.45 2.90 0.89 0.95	0.05 0.67 0.14 0.04 0.05	
988	Compounding Shop Safety Kleen Degreaser	VOC	0.21	0.20	
989	LP Shop Safety Kleen Degreaser	VOC	0.21	0.20	
991	Feed Purification	VOC	0.11	0.10	

992	Feed Purification	VOC	0.19	0.17
993A	Silyl Chromate Pot	VOC	1.70	0.10

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EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Rates*	Source	Air Contaminant	<u>Emis</u>	ssion_
Point No. (1)	Name(2)	Name	lb/hr	
TPY **				
993B	Silyl Chromate Pot	PM _{2.5} TSP	0.01 0.01	0.01 0.01
995	M-1999 or M-19108 Line 4a Additive Transfer Blower Guard Filter	PM ₁₀	0.02	0.10
996	M-2999 or M-29108 Line 4a Additive Transfer Blower Guard Filter	PM ₁₀	0.02	0.10
997	M-46996 Line 4a Additive Transfer Filter Receiver	PM ₁₀	0.10	0.45

- (1) Emission point identification either specific equipment designated or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources use area name or fugitive source name.
- (3) VOC volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

PM₁₀ - particulate matter (PM) equal to or less than 10 microns in diameter

TSP - total suspended particulate

CO - carbon monoxide

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

PM_{2.5} - particulate matter (PM) equal to or less than 2.5 microns in diameter

SO_x - sulfur oxides

- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) Total particulate emissions from EPNs 652, 945, 946, and 947 are listed under EPN 652.
- (6) Total particulate emissions from EPNs 653, 925, 926, and 929 are listed under EPN 653.

- (7) Total particulate emissions from EPNs 656 and 657 are listed under EPN 656.
- (8) Total particulate emissions from EPNs 689, 691, and 878 are listed under EPN 689.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (9) Total particulate emissions from EPNs 690, 692, and 879 are listed under EPN 690.
- (10) Total VOC, NO_x, and CO emissions for the two Flares (EPNs 721 and 858) are listed under EPN 721.
- (11) Total particulate emissions from EPNs 866, 867, 868, 869, and 870 are listed under EPN 866.
- (12) Total particulate emissions from EPNs 884 and 886 are listed under EPN 884.
- (13) Total particulate emissions from EPNs 885 and 890 are listed under EPN 885.
- (14) Total particulate emissions from EPNs 889 and 891 are listed under EPN 889.
- (15) Total particulate emissions from EPNs 910 and 911 are listed under EPN 910.
- (16) Total particulate emissions from EPNs 913 and 932 are listed under EPN 913.
- (17) Total particulate emissions from EPNs 930 and 931 are listed under EPN 930.
- (18) Total residual VOC emissions from all EPNs downstream of the product purge vessels are listed under EPN 645.
- (19) Total particulate emissions from EPNs 645, 662, 663, 664, and 845 are listed under EPN 645.
- (20) Total particulate emissions from EPNs 647A, 685, 887, 888, 892, 893, 912, 933, and 970 are listed under EPN 647A.
- (21) Total particulate emissions from EPNs 650, 651, 850, and 851 are listed under EPN 650.
- * Emission rates are based on and the facilities are limited by the following maximum operating schedule: 8,760 hrs/year.
- ** Compliance with annual emission limits is based on a rolling 12-month period.

Dated

October 27, 2008