EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

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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.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
7-2-2	Fugitives (4)	VOC	1.68	7.37
		Ammonia	6.05	26.5
7-2-3	Truck Loading	VOC	0.34	0.05
7-2-4	Rail Loading	VOC	2.60	0.06
7-2-5	T-12 Overhead Drum	VOC	<0.001	0.001
7-2-6	Dehydro Methane Burner	CO	0.09	0.36
		NOx	0.47	1.78
		PM10	0.02	0.09
		VOC	0.02	0.09
7-2-7	Dehydro Methane Burner	CO	0.09	0.36
		NOx	0.47	1.78
		PM10	0.02	0.09
		VOC	0.02	0.09
7-2-8	Dilute Acid Water	Organic Acids	<0.001	<0.001

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
7-2-9	Anolon Storage Tank	VOC	0.50	2.02
7-2-10	T-15 Overhead Condenser	VOC	1.62	7.10
7-2-11	Tech Anol Feed Tank	VOC	0.15	0.16
7-2-12	Tech Anol Feed Tank	VOC	0.06	0.16
7-2-13	D'Anone Storage Tank	VOC	0.73	0.007
7-2-14	Dehydro Feed Tank	VOC	0.05	0.10
7-2-15	Cyclohexanol Tank	VOC	0.03	0.11
7-2-16	Cyclohexanol Tank	VOC	0.05	0.18
7-2-17	Cyclohexanone Storage Tank	VOC	2.37	0.18
7-2-18	Cyclohexanone Storage Tank	VOC	2.37	0.18
7-2-19	Cyclohexanone Storage Tank	VOC	2.37	0.18
7-2-21	Concentrated Catalyst Tank	VOC	2.51	0.02
7-2-22	Cyclohexanone Storage Tank	VOC	2.37	0.18
7-2-23	Cyclohexanone Storage Tank	VOC	2.37	0.18

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
7-2-24	Anolon Storage Tank	VOC	0.051	0.21
7-2-25	Dehydro Feed Tank	VOC	1.37	0.07
7-2-27	Dilute Catalyst Tank	VOC	0.63	0.04
7-2-30	Anone and Anolon Storage Tank	VOC	0.62	0.23
7-2-32	Dilute Caustic Tank	VOC		<0.001
7-2-36	Steam Eductor Jet	VOC	1.75	7.68
9-1-24	Cyclohexane Tank	VOC	0.26	0.32
9-1-25	Cyclohexane Tank	VOC	0.23	0.38
9-1-26	Cyclohexane Tank	VOC	0.12	0.31
9-1-27	Concentrated Acid Water Tank	Organic Acids	<0.001	0.003
9-1-28	Emergency Dump Tank	VOC	60.87	6.85
11-1-2	Catalytic Incinerator	CO	50.72	222.14
		NOx	0.97	0.94
		PM10	0.05	0.05
		VOC	20.91	91.63
11-1-3	Dehydro Methane Burner	CO	0.09	0.36
		NOx	0.47	1.78
		PM10	0.02	0.09
		VOC	0.02	0.09
11-1-4	Dehydro Methane Burner	CO	0.09	0.36
		NOx	0.47	1.78
		PM10	0.02	0.09

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
		VOC	0.02	0.09
11-1-5	Dehydro Methane Burner	CO	0.09	0.36
		NOx	0.47	1.78
		PM10	0.02	0.09
		VOC	0.02	0.09
11-1-6	Dehydro Methane Burner	CO	0.10	0.36
		NOx	0.51	1.78
		PM10	0.03	0.09
		VOC	0.03	0.09
11-1-7	Waste Burner	CO	0.98	4.03
		NOx	18.83	77.73
		PM10	7.6	31.36
		VOC	30.62	123.3
11-1-8	Waste Burner	CO	0.98	4.03
		NOx	18.83	77.73
		PM10	7.6	31.36
		VOC	30.62	123.3
11-1-9	Vent Condenser	VOC	12.11	10.91
11-1-10	Anolon Tank	VOC	2.27	0.28
11-1-12	Overhead Condenser	VOC	2.43	10.66
11-1-13	Overhead Condenser	VOC	4.45	19.49
11-1-15	Storage Tank	VOC	<0.01	<0.01
11-1-17	Steam Eductor Jet	VOC	5.54	23.44
11-1-18	Steam Eductor Jet	VOC	4.30	18.82

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
11-1-19	Steam Eductor Jet	VOC	1.67	7.33
11-1-20	Steam Eductor Jet	VOC	1.95	8.75
11-1-21	EP 316/323 Tank	VOC	<0.01	<0.01
11-1-22	EP 323 Storage Tank	VOC	0.075	0.31
11-1-23	Concentrated Acid Water	Organic Acids	<0.01	<0.01
11-1-24	Dilute Acid Water Tank	Organic Acids	<0.01	<0.01
11-1-25	Conc. Catalyst Tank	VOC	1.93	0.02
11-1-26	Dilute Catalyst Tank	VOC	0.04	0.11
11-1-27	Hotwell Tank	VOC	<0.001	0.002
11-1-29	Anolon Tank	VOC	11.37	8.1
11-1-35	Cyclohexanone Tanks (3)	VOC	1.17	5.14
11-1-36	Dehydro Feed Tank	VOC	0.41	0.09
11-1-37	Dehydro Feed Tank	VOC	0.41	0.09
11-1-38	Dehydro Feed Tank	VOC	0.41	0.09
11-1-39	Dehydro Feed Tank	VOC	0.41	0.09
11-1-40	Heavies Cracking Feed	VOC	0.32	0.20
11-1-41	EP-316 Storage Tank	VOC	0.15	0.054
11-1-42	EP-316 Storage Tank	VOC	0.22	0.14

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
11-1-43	Dehydro Methane Burner	CO	0.09	0.36
		NOx	0.47	1.78
		PM10	0.02	0.09
		VOC	0.03	0.09
11-1-44	Dehydro Methane Burner	CO	0.10	0.36
		NOx	0.51	1.78
		PM10	0.03	0.09
		VOC	0.03	0.09
11-1-45	Emergency Dump Tank	VOC	62.35	0.50
11-1-47	Fugitives (4)	VOC	2.79	12.21
11-1-48	Fugitives (4)	VOC	2.17	9.46
11-1-50	Railcar Loading	VOC	7.87	0.72
11-1-51	Truck Loading	VOC	1.11	0.087
11-1-52	Off-site Barge Loading	VOC	2.83	0.181
7-3-1	Nitric Oxide Flare	NOx	2.15	0.47
		CO	1.0	0.13
7-3-2	Vent Gas Flare	NOx	71.4	312.76
		CO	7.01	30.7
7-3-34	Kettle Scrubber Vent	Acids	0.5	2.19
7-3-35	Catalytic Conv. Vent	PM10	<0.001	<0.001
7-3-42	Catalyst Oven Vent	PM10	<0.001	<0.001
7-3-43	Catalyst Oven Vent	PM10	<0.001	<0.001

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
7-3-44	Catalyst Oven Vent	PM10	<0.001	<0.001
7-3-52	Transfer Station	PM10	1.17	5.04
12-1-1	Vent Gas Flare	NOx	210.98	707.64
		CO	10.92	36.80
12-1-2	Nitric Oxide Flare	NOx	1.0	0.07
		CO	1.0	0.13
12-1-8	Conc. Sulfuric Acid Storage Drum	H2SO4		<0.001
12-1-9	Conc. Sulfuric Acid Storage Drum	H2SO4		<0.001
12-1-29	Catalytic Converter Vent	PM10	<0.001	0.003
12-1-30	Kettle Scrubber Vent	Acids	0.50	2.19
12-1-31	Catalyst Oven Vent	PM10	<0.001	<0.001
12-1-32	Catalyst Oven Vent	PM10	<0.001	<0.001
12-1-33	Catalyst Oven Vent	PM10	<0.001	<0.001
12-1-34	Catalyst Oven Vent	PM10	<0.001	<0.001
12-1-35	Catalyst Oven Vent	PM10	<0.001	<0.001
12-1-36	Catalyst Oven Vent	PM10	<0.001	<0.001
12-1-44	Catalyst Transfer Stn.	PM10	4.01	17.23
7-1-7	Anone Stripper OH Drum	VOC	0.62	0.003

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
7-1-8	Benzene Scrubber Vent	VOC (Benzene)	0.75	3.29
7-1-9	Slurry Setting Drum	VOC	0.32	<0.001
7-1-11	Wash Water Storage Tank	VOC	0.001	
7-1-12	Wash Water Storage Tank	VOC	0.002	
7-1-15	Neut. Separator Drum	VOC	0.45	<0.001
7-1-16	Neut. Circulation Drum	VOC	0.14	<0.001
7-1-17	Neut. Crude Storage Tank	VOC	0.01	0.004
7-1-20	Kettle Dump Drum	VOC	0.01	<0.001
7-1-21	Overhead Drum	VOC	0.01	<0.001
7-1-22	Bottoms Drum	VOC	0.10	<0.001
7-1-23	Check Tank	VOC	0.20	0.01
7-1-24	Check Tank	VOC	0.20	0.01
7-1-25	Storage Tank Vent	VOC	4.46	0.006
7-1-26	Kettles Overhead Tank	VOC	0.006	0.02
7-1-27	Bottoms Drum	VOC	0.04	0.002
7-1-29	Anone Surge Tank	VOC	1.20	0.003
7-1-30	Oleum Scrubber Vent	SO3/H2SO4	<0.001	0.003
7-1-31	Oxime Holdup Tank	VOC	1.16	0.011

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
7-1-32	Neut. Separator Drum	VOC	0.45	<0.001
7-1-33	Neut. Circulation Drum	VOC	0.20	<0.001
7-1-34	Neut. Crude Stg. Tank	VOC	0.03	0.004
7-1-35	Extract Storage Tank	VOC	0.0130	0.013
7-1-36	Overheads Drum	VOC	0.022	<0.001
7-1-37	Bottoms Tank	VOC	0.12	<0.001
7-1-38	Product Check Tank	VOC	0.02	0.01
7-1-39	Product Check Tank	VOC	0.02	0.01
7-1-40	Overheads Drum	VOC	0.007	<0.001
7-1-41	Poly Return Stg. Tank	VOC	0.006	0.002
7-1-42	Oxime Salt Stg. Tank	VOC	0.004	<0.001
7-1-43	Mother Liquor Stg. Tank	VOC	0.016	<0.001
7-1-44	Flake Feed Storage Tank	VOC	0.12	0.53
7-1-46	SO4 Scrubber	PM10	4.86	21.29
7-1-47	Jet Vent	VOC	<0.001	0.046
7-1-48	Jet Vent	VOC	<0.001	0.046
7-1-49	Flaker N2 Scrubber	PM10	0.64	2.79
7-1-58	Jet Vent	VOC	<0.001	0.046

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
7-1-59	Jet Vent	VOC	<0.001	0.046
7-1-60	Jet Vent	VOC	<0.001	0.046
7-1-61	Jet Vent	VOC	<0.001	0.046
7-1-62	Jet Vent	VOC	<0.001	0.046
7-1-63	Jet Vent	VOC	<0.001	0.046
7-1-64	N2 Drying Tower	VOC	0.056	0.24
7-1-65	Tank Farm Fugitives (4)	VOC	0.267	1.07
7-1-66	Tank Farm Fugitives (4)	VOC	0.034	0.88
7-1-67	Oximation Fugitives (4)	VOC	0.3	1.32
7-1-68	Distillation Fugitives (4)	VOC	0.3	1.32
7-1-69	Reaction Fugitives (4)	VOC	0.3	1.32
7-1-70	Extraction Fugitives (4)	VOC	0.3	1.32
7-1-71	Capro. Rail Loading	VOC	0.01	<0.001
7-1-73	SO2 Scrubber	SO2 Ammonia	2.76 0.29	12.07 1.27
14-1-4	Oxime Separator	VOC	<0.001	<0.01
14-1-5	Oxime Separator	VOC	<0.001	0.0033
14-1-7	Overheads	VOC	0.22	0.95
14-1-8	Lactam Separator	VOC	<0.001	<<0.001

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
14-1-10	Purge Drums	VOC	2.55	2.66
14-1-12	Centrifuge Feed Tank	VOC	0.000	<0.001
14-1-13	Centrifuge Feed Tank	VOC	0.014	<0.001
14-1-18	HW-140	VOC	0.057	0.25
14-1-25	Oxime Storage Drum	VOC	1.48	0.012
14-1-27	Crude Lactam Storage	VOC	0.027	0.005
14-1-29	Extract Storage	VOC	0.007	0.002
14-1-30	Extract Storage	VOC	0.004	<0.001
14-1-31	Extract Storage	VOC	<0.001	0.0000
14-1-36	Foreruns Receiver	VOC	0.76	0.007
14-1-37	Lights Throwaway Stg.	VOC	0.10	0.002
14-1-38	Kettle Feed Drum	VOC	0.25	0.029
14-1-39	Kettle Overheads	VOC	0.61	0.005
14-1-40	Mother Liquor Stg.	VOC	0.00	0.001
14-1-41	Mother Liquor Receiver	VOC	0.01	<0.001
14-1-44	Water Storage	VOC	<0.001	0.0000
14-1-45	Concentrated Storage	VOC	4.69	0.098
14-1-46	Oxime Salt Storage	VOC	1.21	0.002
14-1-47	Mother Liquor Stg.	VOC	0.62	0.004

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
14-1-54	EV-140	VOC	<0.001	0.046
14-1-55	Drying Tower	VOC	<0.001	0.046
14-1-56	Foreruns Tower Receiver	VOC	<0.001	0.046
14-1-57	Finishing Tower	VOC	<0.001	0.046
14-1-58	E-511	VOC	<0.001	0.046
14-1-60	D-431	VOC	<0.001	0.046
14-1-61	Kettle	VOC	<0.001	0.046
14-1-62	E-600a	VOC	<0.001	0.046
14-1-63	E-600b	VOC	<0.001	0.046
14-1-64	E-720	VOC	<0.001	0.046
14-1-65	T-130	VOC	<0.001	0.003
14-1-67	Pre-Drying Tower	VOC	<0.001	0.046
14-1-68	Caprolactam Loading	VOC	1.33	2.37
14-1-69	Scrubber	PM10	1.17	5.12
14-1-70	Kettle	VOC	<0.001	0.046
14-1-73-01	Oximation Fugitives (4)	VOC	0.20	0.87
14-1-73-02	Anone Recovery Fugitives (4)	VOC	0.20	0.87
14-1-73-03	Caprolactam Fugitives (4)	VOC (Benzene)	0.20	0.87
14-1-73-04	Benzene Fugitives (4)	VOC (Benzene)	0.20	0.87

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
14-1-75	Benzene Crude Scrubber	VOC (Benzene)	0.75	3.29
14-1-76	SO2 Scrubber	SO2	2.76	12.07
		Ammonia	0.29	1.27
14-1-77	Oleum Scrubber	SO3/H2SO4	<0.001	0.003
14-1-78	t1160,t1150	VOC	0.08	0.32
14-1-82	Benzene Truck Loading	VOC (Benzene)	1.07	0.003
14-1-83	Caprolactam Loading	VOC	0.002	<0.001
14-1-85	Extract Storage	VOC	8.6	37.7
14-1-86	Kettle Dump Trailer	VOC	0.067	0.294
14-1-87	e331a	VOC	<0.001	0.046
14-1-88	e341b	VOC	<0.001	0.046
14-1-90	Extraction Tower Bottoms	VOC	<0.001	0.0000

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources use area name or fugitive source name.
(3) PM10 - particulate matter less than 10 microns
VOC - volatile organic compounds as defined in General Rule 101.1
NOx - total oxides of nitrogen
SO2 - sulfur dioxide
CO - carbon monoxide
H2SO4 - sulfuric acid
SO3 - sulfur trioxide
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	Emission Rates TPY

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