Emission Sources - Maximum Allowable Emission Rates

Permit Number 168854

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, sources, and related activities. 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	
			lbs/hour	TPY (4)
DAC-1	Direct Air Contactor	PM	12.25	50.58
		PM_{10}	11.24	46.63
		$PM_{2.5}$	9.13	37.79
C-SU-NG	Calciner Startup Natural Gas Combustion	NOx	3.92	1.41
		CO	145.26	5.70
		VOC	0.43	0.16
		SO_2	0.05	0.02
		PM	3.85	1.39
		PM_{10}	3.85	1.39
		$PM_{2.5}$	3.85	1.39
SUCO2Vent	Calciner Startup CO_2 Venting	NOx	18.46	6.64
		CO	31.01	11.16
		VOC	2.07	0.74
		SO_2	0.22	0.08
		PM	3.75	1.35
		PM_{10}	3.75	1.35
		$PM_{2.5}$	3.75	1.35
ASU-CT	ASU Cooling Tower	PM	0.18	0.77
		PM_{10}	0.13	0.56
		$PM_{2.5}$	0.06	0.25
GENASU	ASU Emergency Generator	NOx	16.08	0.80
		CO	8.79	0.44
		VOC	16.08	0.80
		SO2	0.02	<0.01
		PM	0.50	0.03
		PM_{10}	0.50	0.03

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.50	0.03
GENWT	WT Emergency Generator	NOx	16.08	0.80
		CO	8.79	0.44
		VOC	16.08	0.80
		SO2	0.02	<0.01
		PM	0.50	0.03
		PM_{10}	0.50	0.03
		$PM_{2.5}$	0.50	0.03
GENDAC	DAC Emergency Generator	NOx	16.08	0.80
		CO	8.79	0.44
		VOC	16.08	0.80
		SO2	0.02	<0.01
		PM	0.50	0.03
		PM_{10}	0.50	0.03
		$PM_{2.5}$	0.50	0.03
PM-PlantRd	Plant Road Fugitives	PM	7.29	10.86
		PM_{10}	1.46	2.17
		$PM_{2.5}$	0.36	0.53
101-718302	Calciner Baghouse	PM	2.26	9.90
		PM_{10}	2.26	9.90
		$PM_{2.5}$	2.26	9.90
7-C-714012	$CaCO_3$ Transition Conveyor 1 - Screw Conveyor	PM	0.04	(6)
		PM_{10}	0.04	(6)
		$PM_{2.5}$	0.02	(6)
7-C-714022	$CaCO_3$ Transition Conveyor 2 - Screw Conveyor	PM	0.04	(6)
		PM_{10}	0.04	(6)
		$PM_{2.5}$	0.02	(6)
7-C-714032	$CaCO_3$ Transition Conveyor 3 - Screw Conveyor	PM	0.04	(6)
		PM_{10}	0.04	(6)
		$PM_{2.5}$	0.02	(6)
7-C-714042	$CaCO_3$ Transition Conveyor 4 - Screw Conveyor	PM	0.04	(6)
		PM_{10}	0.04	(6)

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.02	(6)
7-C-714052	$CaCO_3$ Transition Conveyor 5 - Screw Conveyor	PM	0.04	(6)
		PM_{10}	0.04	(6)
		$PM_{2.5}$	0.02	(6)
CAP1	$CaCO_3$ Transition Conveyors - Screw Conveyors	PM	-	0.42
		PM_{10}	-	0.35
		$PM_{2.5}$	-	0.18
7-C-714080	Wet Pellet Transfer Conveyor - Belt Conveyor	PM	0.15	0.52
		PM_{10}	0.13	0.44
		$PM_{2.5}$	0.06	0.22
7-C-714081	Wet Pellet Silo Bucket Elevator	PM	0.11	0.39
		PM_{10}	0.09	0.33
		$PM_{2.5}$	0.05	0.16
7-C-714082	Wet Pellet Silo Feed Conveyor 1 - Belt Conveyor	PM	0.12	0.42
		PM_{10}	0.10	0.35
		$PM_{2.5}$	0.05	0.17
7-C-714089	Wet Pellet to Grinder Feeder 1 – Screw Conveyor	PM	0.01	(7)
		PM_{10}	0.01	(7)
		$PM_{2.5}$	<0.01	(7)
7-C-714090	Wet Pellet to Grinder Feeder 2 - Screw Conveyor	PM	0.01	(7)
		PM_{10}	0.01	(7)
		$PM_{2.5}$	0.01	(7)
CAP2	Wet Pellet to Grinder Feeders - Screw Conveyors	PM	-	0.04
		PM_{10}	-	0.03
		$PM_{2.5}$	-	0.02
7-C-714091	Pellet Grinder Crossover Conveyor - Screw Conveyor	PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	<0.01	0.02
7-C-714098	Pellet Grinder Feed Conveyor 1 - Screw Conveyor	PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.02
7-C-714099	Pellet Grinder Feed Conveyor 2 - Screw Conveyor	PM	0.01	0.04

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.01	0.04
		$PM_{2.5}$	<0.01	0.02
7-C-714092	Wet Pellet to Dryer Feeder 1 - Belt Conveyor	PM	0.14	(8)
		PM_{10}	0.12	(8)
		$PM_{2.5}$	0.06	(8)
7-C-714093	Wet Pellet to Dryer Feeder 2 - Belt Conveyor	PM	0.14	(8)
		PM_{10}	0.12	(8)
		$PM_{2.5}$	0.06	(8)
CAP3	Wet Pellet to Dryer Feeders - Belt Conveyors	PM	-	0.62
		PM_{10}	-	0.52
		$PM_{2.5}$	-	0.26
7-C-714095	Calciner Feed Conveyor - Belt Conveyor	PM	0.18	0.74
		PM_{10}	0.06	0.26
		$PM_{2.5}$	0.01	0.04
7-C-715211	Wet Fines Conveyor 1A - Screw Conveyor	PM	0.02	0.03
		PM_{10}	0.01	0.01
		$PM_{2.5}$	<0.01	<0.01
7-C-715221	Wet Fines Conveyor 1B - Screw Conveyor	PM	0.02	0.03
		PM_{10}	0.01	0.01
		$PM_{2.5}$	<0.01	<0.01
7-C-715406	Wet Fines Conveyor 2 - Screw Conveyor	PM	0.02	0.08
		PM_{10}	0.01	0.03
		$PM_{2.5}$	<0.01	<0.01
8-Z-861002-1	Bulk Solid (Soda Ash) Silo 1	PM	0.36	0.03
		PM_{10}	0.20	0.02
		$PM_{2.5}$	0.03	<0.01
8-Z-861002-2	Bulk Solid (Soda Ash) Silo 2	PM	0.36	0.03
		PM_{10}	0.20	0.02
		$PM_{2.5}$	0.03	<0.01
8-Z-861002-3	Bulk Solid (Soda Ash) Silo 3	PM	0.36	0.03
		PM_{10}	0.20	0.02
		$PM_{2.5}$	0.03	<0.01

Emission Sources - Maximum Allowable Emission Rates

8-Z-861002-4	Bulk Solid (Soda Ash) Silo 4	PM	0.36	0.03
		PM_{10}	0.20	0.02
		$PM_{2.5}$	0.03	<0.01
8-Z-861002-5	Bulk Solid (Lime) Silo	PM	0.36	0.03
		PM_{10}	0.20	0.02
		$PM_{2.5}$	0.03	<0.01
1-T-112061	Seed Feed Bin 1	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.04	0.17
2-T-112061	Seed Feed Bin 2	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.04	0.17
3-T-112061	Seed Feed Bin 3	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.04	0.17
4-T-112061	Seed Feed Bin 4	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.04	0.17
7-Z-714100	Pellet Grinder Package	PM	0.64	2.82
		PM_{10}	0.64	2.82
		$PM_{2.5}$	0.64	2.82
7-T-714150	Seed Product Silos 1	PM	0.03	0.14
		PM_{10}	0.03	0.14
		$PM_{2.5}$	0.03	0.14
7-T-714250	Seed Product Silos 2	PM	0.03	0.14
		PM_{10}	0.03	0.14
		$PM_{2.5}$	0.03	0.14
7-T-714301	Dry Fines Silo	PM	0.03	0.12
		PM_{10}	0.03	0.12
		$PM_{2.5}$	0.03	0.12
7-F-714085	$CaCO_3$ Makeup Receiver	PM	0.04	0.17
		PM_{10}	0.04	0.17

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.04	0.17
7-F-714086	$CaCO_3$ Makeup Receiver	PM	0.04	0.17
		PM_{10}	0.04	0.17
		$PM_{2.5}$	0.04	0.17
7-T-714096	Wet Pellet Silo	PM	0.05	0.09
		PM_{10}	0.05	0.09
		$PM_{2.5}$	0.05	0.09
7-T-714097	Wet Pellet Silo	PM	0.05	0.09
		PM_{10}	0.05	0.09
		$PM_{2.5}$	0.05	0.09
7-T-716910	CaO Storage Silo 1	PM	0.27	1.16
		PM_{10}	0.27	1.16
		$PM_{2.5}$	0.27	1.16
7-T-716911	CaO Storage Silo 2	PM	0.27	1.16
		PM_{10}	0.27	1.16
		$PM_{2.5}$	0.27	1.16
7-F-716905	CaO Purge Receiver	PM	0.27	0.01
		PM_{10}	0.27	0.01
		$PM_{2.5}$	0.27	0.01
1-T-119001	CaO Bin 1	PM	0.19	0.82
		PM_{10}	0.19	0.82
		$PM_{2.5}$	0.19	0.82
2-T-219001	CaO Bin 2	PM	0.19	0.82
		PM_{10}	0.19	0.82
		$PM_{2.5}$	0.19	0.82
3-T-319001	CaO Bin 3	PM	0.19	0.82
		PM_{10}	0.19	0.82
		$PM_{2.5}$	0.19	0.82
4-T-419001	CaO Bin 4	PM	0.19	0.82
		PM_{10}	0.19	0.82
		$PM_{2.5}$	0.19	0.82
1-V-119013	Slaker Dust and Vent Scrubber 1	PM	0.02	0.09

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.09
2-V-119013	Slaker Dust and Vent Scrubber 2	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.09
3-V-119013	Slaker Dust and Vent Scrubber 3	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.09
4-V-119013	Slaker Dust and Vent Scrubber 4	PM	0.02	0.09
		PM_{10}	0.02	0.09
		$PM_{2.5}$	0.02	0.09
BE1	Bucket Elevator 1	PM	0.27	1.16
		PM_{10}	0.09	0.41
		$PM_{2.5}$	0.01	0.06
BE2	Bucket Elevator 2	PM	0.27	1.16
		PM_{10}	0.09	0.41
		$PM_{2.5}$	0.01	0.06
CP-T-15030	Surge Bin	PM	0.27	1.16
		PM_{10}	0.09	0.41
		$PM_{2.5}$	0.01	0.06
CP-C-15010	Table Feeder	PM	0.27	1.16
		PM_{10}	0.09	0.41
		$PM_{2.5}$	0.01	0.06
T-714005	Centrifuge Acid Wash Tank, 8% HCl	HCl	<0.01	<0.01
T-869001	18% HCl Storage Tank	HCl	0.02	<0.01
T-HCl	36% HCl Storage Tank Scrubber	HCl	0.16	0.02
FUG	Plant Equipment Leaks (5)	VOC	0.02	0.10
H2S Scrubber	Raw Water Treatment H2S Scrubber	PM	0.65	2.87
		PM_{10}	0.65	2.87
		$PM_{2.5}$	0.65	2.87
		H_2S	6.40	28.03
CO2 Scrubber	CO_2 Vent Scrubber (Normal Operation of the Calciner)	NOx	2.29	10.02

Emission Sources - Maximum Allowable Emission Rates

		CO	3.49	15.27
		PM	0.08	0.36
		PM_{10}	0.08	0.36
		$PM_{2.5}$	0.08	0.36

(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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
CO_2 - carbon dioxide
HCl - hydrogen chloride
H_2S - hydrogen sulfide
CaO - calcium oxide
$CaCO_3$ - calcium carbonate
(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) Annual emission limit is authorized under EPN CAP1.
(7) Annual emission limit is authorized under EPN CAP2.
(8) Annual emission limit is authorized under EPN CAP3.

Date: TBD