Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 4437A, PSDTX808, and N014M2

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) |
| 1000 | Catalyst Activator 1 Main Burner (9) | PM | 0.05 | --- |
| | | $PM_{10}$ | 0.05 | --- |
| | | $PM_{2.5}$ | 0.05 | --- |
| | | SO2 | <0.01 | --- |
| | | NOx | 0.67 | --- |
| | | CO | 0.56 | --- |
| | | VOC | 0.04 | --- |
| 83 | Catalyst Activator 2 Main Burner (9) | PM | 0.05 | --- |
| | | $PM_{10}$ | 0.05 | --- |
| | | $PM_{2.5}$ | 0.05 | --- |
| | | $SO_2$ | <0.01 | --- |
| | | $NO_x$ | 0.67 | --- |
| | | CO | 0.56 | --- |
| | | VOC | 0.04 | --- |
| 86 | Catalyst Activator 3 Main Burner (9) | PM | 0.05 | --- |
| | | $PM_{10}$ | 0.05 | --- |
| | | $PM_{2.5}$ | 0.05 | --- |
| | | $SO_2$ | <0.01 | --- |
| | | $NO_x$ | 0.67 | --- |
| | | CO | 0.56 | --- |
| | | VOC | 0.04 | --- |
| 146 | Catalyst Activator 4 Main Burner (9) | PM | 0.05 | --- |
| | | $PM_{10}$ | 0.05 | --- |
| | | $PM_{2.5}$ | 0.05 | --- |
| | | $SO_2$ | <0.01 | --- |
| | | $NO_x$ | 0.67 | --- |
| | | CO | 0.56 | --- |
| | | VOC | 0.04 | --- |
| 170 | Catalyst Activator 5 Main Burner (9) | PM | 0.05 | --- |
| | | $PM_{10}$ | 0.05 | --- |
| | | $PM_{2.5}$ | 0.05 | --- |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | $SO_2$ | <0.01 | --- |
| | | $NO_x$ | 0.67 | --- |
| | | CO | 0.56 | --- |
| | | VOC | 0.04 | --- |
| 1000, 83, 86, 146, and 170 | Catalyst Activator Burners 1-5 (9) | PM | --- | 0.94 |
| | | $PM_{10}$ | --- | 0.94 |
| | | $PM_{2.5}$ | --- | 0.94 |
| | | $SO_2$ | --- | 0.07 |
| | | $NO_x$ | --- | 12.34 |
| | | CO | --- | 10.37 |
| | | VOC | --- | 0.68 |
| 146 | Catalyst Activator 4 | VOC | 0.04 | --- |
| | | PM | 0.05 | --- |
| | | $PM_{10}$ | 0.05 | --- |
| | | $PM_{2.5}$ | 0.05 | --- |
| | | $SO_2$ | 0.10 | --- |
| | | $NO_x$ | 0.25 | --- |
| | | CO | 0.56 | --- |
| 1010 | Catalyst Activator 6 Main Burner | VOC | 0.05 | --- |
| | | PM | 0.07 | --- |
| | | $PM_{10}$ | 0.07 | --- |
| | | $PM_{2.5}$ | 0.07 | --- |
| | | $SO_2$ | 0.14 | --- |
| | | $NO_x$ | 0.35 | --- |
| | | CO | 0.81 | --- |
| 1011 | Catalyst Activator 7 Main Burner | VOC | 0.05 | --- |
| | | PM | 0.07 | --- |
| | | $PM_{10}$ | 0.07 | --- |
| | | $PM_{2.5}$ | 0.07 | --- |
| | | $SO_2$ | 0.14 | --- |
| | | $NO_x$ | 0.35 | --- |
| | | CO | 0.81 | --- |
| 146, 1010, and 1011 | Catalyst Activator Burners 4, 6, 7 | PM | --- | 0.86 |
| | | $PM_{10}$ | --- | 0.86 |
| | | $PM_{2.5}$ | --- | 0.86 |
| | | $SO_2$ | --- | 1.62 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | $NO_x$ | --- | 4.61 |
| | | CO | --- | 4.76 |
| | | VOC | --- | 0.62 |
| 1001 | Catalyst Activator 1 HEPA Filter Vent (9) | PM | <0.01 | --- |
| | | $PM_{10}$ | <0.01 | --- |
| | | $PM_{2.5}$ | <0.01 | --- |
| | | CO | 25.58 | --- |
| | | VOC | 9.99 | --- |
| 1002 | Catalyst Activator 2 HEPA Filter Vent (9) | PM | <0.01 | --- |
| | | $PM_{10}$ | <0.01 | --- |
| | | $PM_{2.5}$ | <0.01 | --- |
| | | CO | 25.58 | --- |
| | | VOC | 9.99 | --- |
| 1003 | Catalyst Activator 5 HEPA Filter Vent (9) | PM | <0.01 | --- |
| | | $PM_{10}$ | <0.01 | --- |
| | | $PM_{2.5}$ | <0.01 | --- |
| | | CO | 25.58 | --- |
| | | VOC | 9.99 | --- |
| 1003A | Catalyst Activator 3 HEPA Filter Vent (9) | PM | <0.01 | --- |
| | | $PM_{10}$ | <0.01 | --- |
| | | $PM_{2.5}$ | <0.01 | --- |
| | | CO | 25.58 | --- |
| | | VOC | 9.99 | --- |
| 1003B | Catalyst Activator 4 HEPA Filter Vent (9) | PM | <0.01 | --- |
| | | $PM_{10}$ | <0.01 | --- |
| | | $PM_{2.5}$ | <0.01 | --- |
| | | $SO_2$ | 0.28 | --- |
| | | CO | 25.58 | --- |
| | | VOC | 9.99 | --- |
| 1001, 1002, 1003, 1003A, & 1003B | Catalyst Activators 1, 2, 3, 4, 5 HEPA Filter Vent (9) | PM | --- | <0.01 |
| | | $PM_{10}$ | --- | <0.01 |
| | | $PM_{2.5}$ | --- | <0.01 |
| | | $SO_2$ | --- | 0.19 |
| | | CO | --- | 21.10 |
| | | VOC | --- | 3.13 |
| 1003B | Catalyst Activator 4 | PM | 0.82 | --- |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | HEPA Filter Vent | $PM_{10}$ | 0.05 | --- |
| | | $PM_{2.5}$ | 0.01 | --- |
| | | $SO_2$ | 0.28 | --- |
| | | VOC | 0.00 | --- |
| 1008A/B | Catalyst Activator 6 HEPA Filter Vent | PM | 2.14 | --- |
| | | $PM_{10}$ | 0.14 | --- |
| | | $PM_{2.5}$ | 0.03 | --- |
| | | VOC | 44.4 | --- |
| | | CO | 46.8 | --- |
| 1009A/B | Catalyst Activator 7 HEPA Filter Vent | PM | 2.14 | --- |
| | | $PM_{10}$ | 0.14 | --- |
| | | $PM_{2.5}$ | 0.03 | --- |
| | | VOC | 44.4 | --- |
| | | CO | 46.8 | --- |
| 1003B, 1008A/B, 1009A/B | Catalyst Activators 4, 6, 7 HEPA Filter Vent | PM | --- | 0.75 |
| | | $PM_{10}$ | --- | 0.05 |
| | | $PM_{2.5}$ | --- | 0.01 |
| | | $SO_2$ | --- | 0.19 |
| | | CO | --- | 29.84 |
| | | VOC | --- | 4.43 |
| 1004 | Catalyst Activator Quench Station Vent (6) | PM | <0.01 | <0.01 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| 1005 | Catalyst Activator Raw Catalyst Charging Bldg Vent | PM | <0.01 | <0.01 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| 1006 | Catalyst Activator Drum Loading Enclosure Vent | PM | <0.01 | <0.01 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| 1007 | Catalyst Activator Fugitive Emissions | PM | <0.01 | 0.01 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| 20 | Administrative Complex Emergency Generator | PM | 0.86 | 0.04 |
| | | $PM_{10}$ | 0.86 | 0.04 |
| | | $PM_{2.5}$ | 0.86 | 0.04 |
| | | $SO_2$ | 0.80 | 0.04 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | $NO_x$ | 12.09 | 0.60 |
| | | CO | 2.61 | 0.13 |
| | | VOC | 0.96 | 0.05 |
| 201 | Flash Tank Cleanout | VOC | 1.00 | --- |
| 250 | Flash Tank Cleanout | VOC | 1.00 | --- |
| 201 & 250 | Flash Tank Cleanout | VOC | --- | 0.15 |
| 206 | Powder Additive Tank | PM | 0.07 | --- |
| | | $PM_{10}$ | 0.07 | --- |
| | | $PM_{2.5}$ | 0.07 | --- |
| | | VOC | 0.03 | --- |
| 252 | Powder Additive Tank | PM | 0.07 | --- |
| | | $PM_{10}$ | 0.07 | --- |
| | | $PM_{2.5}$ | 0.07 | --- |
| | | VOC | 0.03 | --- |
| 206 & 252 | Powder Additive Tanks | PM | --- | 0.08 |
| | | $PM_{10}$ | --- | 0.08 |
| | | $PM_{2.5}$ | --- | 0.08 |
| | | VOC | --- | 0.03 |
| 207 | Pellet Dryer | VOC | 0.61 | 2.68 |
| 208 | Blend Tanks | PM | 0.04 | 0.19 |
| | | $PM_{10}$ | 0.04 | 0.19 |
| | | $PM_{2.5}$ | 0.04 | 0.19 |
| 209 | Off-Spec Tank | PM | 0.05 | --- |
| | | $PM_{10}$ | 0.05 | --- |
| | | $PM_{2.5}$ | 0.05 | --- |
| 255 | Off-Spec Tank | PM | 0.05 | --- |
| | | $PM_{10}$ | 0.05 | --- |
| | | $PM_{2.5}$ | 0.05 | --- |
| 209 & 255 | Off-Spec Tanks | PM | --- | 0.20 |
| | | $PM_{10}$ | --- | 0.20 |
| | | $PM_{2.5}$ | --- | 0.20 |
| 210 | Pellet Storage Tanks/Cyclone Vents | PM | 0.15 | 0.67 |
| | | $PM_{10}$ | 0.15 | 0.67 |
| | | $PM_{2.5}$ | 0.15 | 0.67 |
| 217 | Extruder Feed Tank & Cont Bleeder Vent | PM | 0.01 | 0.04 |
| | | $PM_{10}$ | 0.01 | 0.04 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | $PM_{2.5}$ | 0.01 | 0.04 |
| | | VOC | 2.85 | 12.50 |
| 219 | Pellet Loadout Filter | PM | 0.04 | 0.21 |
| | | $PM_{10}$ | 0.04 | 0.21 |
| | | $PM_{2.5}$ | 0.04 | 0.21 |
| PE6-Pellet | P6 Pellet Loss | VOC | 9.60 | 36.79 |
| 253 | Pellet Dryer | VOC | 0.61 | 2.68 |
| 254 | Blend Tanks | PM | 0.04 | 0.19 |
| | | $PM_{10}$ | 0.04 | 0.19 |
| | | $PM_{2.5}$ | 0.04 | 0.19 |
| 256 | PE 6 Analyzer Vents | VOC | 0.01 | 0.05 |
| 257 | Pellet Storage Tanks/Cyclone Vents | PM | 0.15 | 0.67 |
| | | $PM_{10}$ | 0.15 | 0.67 |
| | | $PM_{2.5}$ | 0.15 | 0.67 |
| 259 | PE6 Piping Fugitives (5) | VOC | 8.33 | 36.46 |
| 260 | Plant 6 Cooling Tower | PM | 1.68 | 7.36 |
| | | $PM_{10}$ | 0.96 | 4.21 |
| | | $PM_{2.5}$ | <0.01 | 0.02 |
| | | VOC | 1.18 | 3.86 |
| 261 | Extruder Feed Tank & Cont Bleeder Vent | PM | 0.01 | 0.04 |
| | | $PM_{10}$ | 0.01 | 0.04 |
| | | $PM_{2.5}$ | 0.01 | 0.04 |
| | | VOC | 2.85 | 12.50 |
| 27 | Water Well Number 5 Engine | PM | 0.03 | 0.01 |
| | | $PM_{10}$ | 0.03 | 0.01 |
| | | $PM_{2.5}$ | 0.03 | 0.01 |
| | | $SO_2$ | <0.01 | <0.01 |
| | | $NO_x$ | 0.27 | 0.12 |
| | | CO | 0.40 | 0.18 |
| | | VOC | 0.05 | 0.02 |
| 300 | Flash Tank Cleanout | VOC | 1.00 | --- |
| 350 | Flash Tank Cleanout | VOC | 1.00 | --- |
| 300 & 350 | Flash Tanks Cleanout | VOC | --- | 0.15 |
| 302 | Powder Additive Tank | PM | 0.07 | --- |
| | | $PM_{10}$ | 0.07 | --- |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | $PM_{2.5}$ | 0.07 | --- |
| | | VOC | 0.03 | --- |
| 352 | Powder Additive Tank | PM | 0.07 | --- |
| | | $PM_{10}$ | 0.07 | --- |
| | | $PM_{2.5}$ | 0.07 | --- |
| | | VOC | 0.03 | --- |
| 302 & 352 | Powder Additive Tanks | PM | --- | 0.08 |
| | | $PM_{10}$ | --- | 0.08 |
| | | $PM_{2.5}$ | --- | 0.08 |
| | | VOC | --- | 0.03 |
| 303 | Pellet Dryer | VOC | 0.51 | 2.21 |
| 304 | Pellet Blending & Storage | PM | 0.21 | 0.33 |
| | | $PM_{10}$ | 0.21 | 0.33 |
| | | $PM_{2.5}$ | 0.21 | 0.33 |
| 305 | Pellet Loadout Bag Filter | PM | 0.04 | 0.34 |
| | | $PM_{10}$ | 0.04 | 0.34 |
| | | $PM_{2.5}$ | 0.04 | 0.34 |
| 305A | Pelletron Deduster | PM | 0.01 | 0.02 |
| | | $PM_{10}$ | 0.01 | 0.02 |
| | | $PM_{2.5}$ | 0.01 | 0.02 |
| 306 | PE7 Piping Fugitives (5) | VOC | 10.38 | 45.47 |
| 307 | Plant 7 Cooling Tower | PM | 0.50 | 2.20 |
| | | $PM_{10}$ | 0.29 | 1.26 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| | | VOC | 1.75 | 4.58 |
| 311 | Fluff Hopper Car Dust Bag Filter | PM | 0.04 | 0.10 |
| | | $PM_{10}$ | 0.04 | 0.10 |
| | | $PM_{2.5}$ | 0.04 | 0.10 |
| | | VOC | 0.29 | 0.67 |
| 313 | Extruder Feed Tank & Cont. Bleeder Vent | PM | 0.01 | 0.04 |
| | | $PM_{10}$ | 0.01 | 0.04 |
| | | $PM_{2.5}$ | 0.01 | 0.04 |
| | | VOC | 2.85 | 12.50 |
| PE7-PELLET | P7 Pellet Loss | VOC | 9.60 | 36.79 |
| 353 | Pellet Dryer | VOC | 0.51 | 2.21 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| 354 | Pellet Blending and Storage | PM | 0.21 | 0.33 |
| | | $PM_{10}$ | 0.21 | 0.33 |
| | | $PM_{2.5}$ | 0.21 | 0.33 |
| 355 | Extruder Feed Tank & Cont. Bleeder Vent | PM | 0.01 | 0.04 |
| | | $PM_{10}$ | 0.01 | 0.04 |
| | | $PM_{2.5}$ | 0.01 | 0.04 |
| | | VOC | 2.85 | 12.50 |
| 356 | PE 7 Analyzer Vents | VOC | 0.01 | 0.05 |
| 400 | Flash Tank Cleanout | VOC | 1.01 | --- |
| 450 | Flash Tank Cleanout | VOC | 1.01 | --- |
| 400 & 450 | Flash Tanks Cleanout | VOC | --- | 0.12 |
| 402 | Powder Additive Tank | PM | 0.07 | --- |
| | | $PM_{10}$ | 0.07 | --- |
| | | $PM_{2.5}$ | 0.07 | --- |
| | | VOC | 0.03 | --- |
| 452 | Powder Additive Tank | PM | 0.07 | --- |
| | | $PM_{10}$ | 0.07 | --- |
| | | $PM_{2.5}$ | 0.07 | --- |
| | | VOC | 0.03 | |
| 402 & 452 | Powder Additive Tanks | PM | --- | 0.08 |
| | | $PM_{10}$ | --- | 0.08 |
| | | $PM_{2.5}$ | --- | 0.08 |
| | | VOC | --- | 0.03 |
| 403 | Pellet Dryer | VOC | 1.82 | 7.97 |
| 404 | Pellet Blending & Storage/Cyclone | PM | 0.07 | 0.25 |
| | | $PM_{10}$ | 0.07 | 0.25 |
| | | $PM_{2.5}$ | 0.07 | 0.25 |
| 405 | Pellet Loadout Bag Filter | PM | 0.01 | 0.02 |
| | | $PM_{10}$ | 0.01 | 0.02 |
| | | $PM_{2.5}$ | 0.01 | 0.02 |
| 406 | PE8 Piping Fugitives (5) | VOC | 8.30 | 36.33 |
| 407 | Plant 8 Cooling Tower | PM | 0.45 | 1.97 |
| | | $PM_{10}$ | 0.26 | 1.13 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| | | VOC | 1.58 | 4.14 |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| 414 | Pellet Transfer Hopper | PM | 0.01 | 0.03 |
| | | $PM_{10}$ | 0.01 | 0.03 |
| | | $PM_{2.5}$ | 0.01 | 0.03 |
| PE8-PELLET | PE 8 Pellet Loss | VOC | 9.60 | 36.79 |
| 453 | Pellet Dryer | VOC | 1.82 | 7.97 |
| 454 | Pellet Blending & Storage/Cyclone | PM | 0.07 | 0.25 |
| | | $PM_{10}$ | 0.07 | 0.25 |
| | | $PM_{2.5}$ | 0.07 | 0.25 |
| 456 | PE 8 Analyzer Vents | VOC | 0.01 | 0.07 |
| 65.2 | Diesel Tank | VOC | 0.26 | 0.01 |
| 900 | HC Unloading Fugitives (5) | VOC | 0.30 | 1.33 |
| 901 | HC Storage Fugitives (5) | VOC | 1.89 | 8.27 |
| 308 (7) | PE 6/7 Flare | $NO_x$ | 49.42 | --- |
| | | CO | 423.74 | --- |
| | | VOC | 172.98 | --- |
| | | $SO_2$ | 0.22 | --- |
| 408 (7) | PE 8 Flare | $NO_x$ | 49.42 | --- |
| | | CO | 423.74 | --- |
| | | VOC | 172.98 | --- |
| | | $SO_2$ | 0.22 | --- |
| 216 (7) | PE Flare | $NO_x$ | 49.42 | --- |
| | | CO | 423.74 | --- |
| | | VOC | 172.98 | --- |
| | | $SO_2$ | 0.22 | --- |
| 308, 408, and 216 (7), (8) | All Flares Routine Emissions (CO, $SO_2$, and NOx limits include both routine and MSS) | $NO_x$ | 49.42 | 57.16 |
| | | CO | 423.74 | 490.13 |
| | | VOC | 172.98 | 188.87 |
| | | $SO_2$ | 0.22 | 0.34 |
| 308, 408, and 216 (7), (8) | All Flares MSS Emissions | VOC | 179.07 | 13.67 |
| MSSCAP | MSS Cap (EPNs 8, 10, 902, 903, DEG- 2, 3, 4, PEMSSATM, PEMSSLD), AEROSOL, MISCMSS, FLTCOMSS, PE6CFMSS, | VOC | 67.47 | 11.85 |
| | | PM | 9.54 | 2.26 |
| | | $PM_{10}$ | 8.03 | 1.35 |
| | | | | |

Emission Sources - Maximum Allowable Emission Rates

| | | | | |
|---|---|---|---|---|
| | | $PM_{2.5}$ | 8.03 | 1.35 |
| CAS-3 | PE8 Carbon Adsorption System | VOC | 0.99 | 3.51 |
| 1012 | Raw Catalyst Loading Act 6 HEPA Filter Vent | PM | 0.02 | <0.01 |
| | | $PM_{10}$ | 0.02 | <0.01 |
| | | $PM_{2.5}$ | 0.02 | <0.01 |
| 1013 | Raw Catalyst Loading Act 7 HEPA Filter Vent | PM | 0.02 | <0.01 |
| | | $PM_{10}$ | 0.02 | <0.01 |
| | | $PM_{2.5}$ | 0.02 | <0.01 |

(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
(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) Emergency use only.
(7) Emission limits for the PE Flare (EPN 216), the PE 6/7 Flare (EPN 308), and the PE 8 Flare (EPN 408) include routine and off-gas operation. Flare emissions are based on total flow rate and composition of all process vents.
(8) Combined emission limits designated as “All Flares” shall not be exceeded no matter how many flares are in operation.
(9) Emission rates prior to completion of catalyst activator upgrades.

Date: December 4, 2023