

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 1302 and PSDTX1085

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 ** |
| PH2 | Start-Up Flare Interim until 12/31/2011 | VOC | 577.88 | 15.60 |
| | | CO | 322.44 | 16.82 |
| | | NO _x | 60.74 | 4.86 |
| | | NH ₃ | 393.16 | 25.02 |
| | | SO ₂ | 0.12 | 0.01 |
| PH2 | Start-Up Flare After 12/31/2011 | VOC | 165.17 | 6.20 |
| | | CO | 258.22 | 18.62 |
| | | NO _x | 65.84 | 5.40 |
| | | NH ₃ | 80.34 | 4.88 |
| | | SO ₂ | 0.23 | 0.02 |
| PH3 | ADN Operating Flare Routine Operations | VOC | 191.54 | 92.42 |
| | | CO | 513.89 | 307.75 |
| | | NO _x | 33.90 | 22.60 |
| | | SO ₂ | 0.92 | 2.91 |
| | | HCl | 0.07 | 0.19 |
| | ADN Operating Flare Maintenance Startup and Shutdown (MSS) Operations (5) | VOC | 565.80 | |
| | | CO | --- | |
| | | NO _x | | 139.52 |
| | | SO ₂ | 1.23 | |
| | | HCl | --- | |
| PH70 | Ammonia Flare Routine/MSS | VOC | 4.68 | 0.34 |

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| | | | lb/hr | TPY ** |
| | Operations (6) | CO | 64.88 | 4.24 |
| | | NO _x | 64.41 | 3.91 |
| | | NH ₃ | 112.67 | 6.76 |
| | | SO ₂ | 0.01 | 0.01 |
| PH63 | HCN Loading Flare | VOC | 0.34 | 0.77 |
| | | CO | 1.59 | 4.07 |
| | | NO _x | 0.20 | 0.49 |
| | | NH ₃ | 0.01 | 0.01 |
| | | SO ₂ | 0.01 | 0.01 |
| PA403 | Building 3056 Fugitive (4) | VOC | 0.45 | 1.99 |
| PA404 | Building 3040 Fugitive (4) | VOC | 4.95 | 21.68 |
| PA405 | Building 3050 Fugitive (4) | VOC | 5.27 | 23.09 |
| PA406 | Building 3092 Fugitive (4) | VOC | 0.08 | 0.37 |
| PA407 | Building 3045/3055 Fugitive (4) | VOC | 0.61 | 2.66 |
| | | HCl | 0.01 | 0.01 |
| PC408 | Building 3065/3099 Fugitive (4) | VOC | 2.36 | 10.37 |
| | | HCl | 0.03 | 0.13 |
| PC409 | Building 3068 Fugitive (4) | VOC | 0.86 | 3.77 |
| | | HCl | 0.01 | 0.01 |
| PF410 | 311 Tank Farm Fugitive (4) | VOC | 0.13 | 0.55 |
| PF414 | 3047 Rail Rack Fugitive (4) | VOC | 0.19 | 0.82 |
| PH401 | Building 3030/3032 | VOC | 3.09 | 13.56 |

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| | | | lb/hr | TPY ** |
| | Fugitive (4) | NH ₃ | 3.60 | 15.75 |
| PH402 | Building 3090 Fugitive (4) | VOC | 0.02 | 0.10 |
| PH601 | E HCN OD Stack | VOC | 0.01 | 0.01 |
| | | NH ₃ | 0.01 | 0.01 |
| PH602 | W HCN OD Stack | VOC | 0.01 | 0.01 |
| | | NH ₃ | 0.01 | 0.01 |
| PC82 | Dust Collector | PM | 0.03 | 0.01 |
| PT301 | Tank | Inorganic | 0.01 | 0.01 |
| PT302 | Tank | Inorganic | 0.01 | 0.01 |
| PT303 | Tank | Inorganic | 0.01 | 0.01 |
| PT304 | Tank | VOC | 0.01 | 0.01 |
| PT305 | Decanter | VOC | 0.01 | 0.01 |
| PT60 | Absorber | VOC | 3.21 | 2.91 |
| | Absorber Emissions | VOC | --- | 0.05 |
| | Durring Maintanance (7) | | | |
| PA39 | Fume Abator (Incinerator) | VOC | 0.48 | 1.05 |
| | | CO | 0.01 | 0.01 |
| | | NO _x | 2.00 | 5.12 |
| | | SO ₂ | 0.01 | 0.01 |
| | | NH ₃ | 0.01 | 0.01 |

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| | | | lb/hr | TPY ** |
| | Fume Abator | VOC | --- | 0.02 |
| | MSS Activities (7) | CO | --- | 0.01 |
| | | NO _x | --- | 0.01 |
| PT326 | Tank | VOC | 0.01 | 0.01 |
| PT329 | Tank | VOC | 2.51 | 0.24 |
| PT335 | Tank | VOC | 0.03 | 0.01 |
| PT308 | Tank | VOC | 1.88 | 0.36 |
| PT10 | HCL Scrubber/Tank | HCL | 0.17 | 0.02 |
| | HCL Scrubber during MSS (7) | HCL | --- | 0.01 |
| PT341 | Tank | VOC | 0.01 | 0.01 |
| PT342 | Tank | VOC | 0.13 | -- |
| PT343 | Tank | VOC | 0.13 | -- |
| PT342, PT343 | Tanks | VOC | -- | 0.08 |
| PT344 | Tank | VOC | 0.02 | 0.01 |
| PT345 | Tank | VOC | 0.01 | 0.01 |
| PT347 | Tank | VOC | 0.01 | 0.01 |
| PT349 | Tank | VOC | 0.02 | 0.01 |

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| | | | lb/hr | TPY ** |
| PT369 | Tank | VOC | 0.01 | 0.01 |
| PT370 | Tank | VOC | 0.01 | 0.01 |
| PT371 | Tank | VOC | 0.01 | 0.01 |
| PT379 | Tank | VOC | 0.01 | 0.01 |
| PT380 | Tank | VOC | 0.01 | 0.01 |
| PT383 | Tank | VOC | 11.30 | -- |
| PT384 | Tank | VOC | 11.30 | -- |
| PT383, PT384 | Tanks | VOC | -- | 3.85 |
| PT387 | Tank | VOC | 0.01 | 0.01 |
| PT388 | Tank | VOC | 0.01 | 0.01 |
| PC83 | Building Vent | PM | 6.00 | 0.75 |
| PN628 | ADN Analyzer Vent | VOC | 0.01 | 0.01 |
| PN601 | NG Plant KO Pot | VOC | 0.05 | 0.22 |
| PH627 | HCN Analyzer Vent | VOC | 0.01 | 0.01 |
| PN301 | Tank | VOC | 0.01 | 0.01 |
| PN302 | Tank | VOC | 0.01 | 0.01 |

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| | | | lb/hr | TPY ** |
| PT353 | Tank | VOC | 0.01 | -- |
| PT354 | Tank | VOC | 0.01 | -- |
| PT355 | Tank | VOC | 0.01 | -- |
| PT353, PT354, PT355 | Tanks | VOC | -- | 0.01 |
| PT381 | Tank | VOC | 5.31 | -- |
| PT382 | Tank | VOC | 5.30 | -- |
| PT381, PT382 | Tanks | VOC | -- | 2.08 |
| PN447 | Gas Plant Fugitive (4) | VOC | 0.57 | 2.49 |
| PF412 | 513 Tank Farm Fugitive (4) | VOC | 0.01 | 0.02 |
| PF413A | Cooling Tower Fugitive (4) | Inorganic | 0.08 | 0.32 |
| PF413 | ADN Cooling Tower | PM | 0.38 | 1.65 |
| PF415 | 3058 Tank Farm Fugitive (4) | VOC | 0.23 | 1.01 |
| PF900 | Parts Degreaser | VOC | 0.025 | 0.01 |
| PF901 | Dust Collector | PM | 0.55 | 0.10 |
| PF40 | South ADN Boiler | VOC | 1.79*** | -- |
| | | CO | 56.68*** | -- |
| | | NO _x | 490.00*** | -- |

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|---------------------------|--------------------------------|-----------------------------|------------------|---------|
| | | | lb/hr | TPY ** |
| | | PM | 13.69*** | -- |
| | | HCl | 2.96*** | -- |
| | | Cl ₂ | 0.72*** | -- |
| | | SO ₂ | 0.23*** | -- |
| PF41 | North ADN Boiler | VOC | 1.79*** | -- |
| | | CO | 69.38*** | -- |
| | | NO _x | 637.00*** | -- |
| | | PM | 13.69*** | -- |
| | | HCl | 2.96*** | -- |
| | | Cl ₂ | 0.72*** | -- |
| | | SO ₂ | 0.23*** | -- |
| PF40/PF41 | South and North ADN Boilers | VOC | -- | 5.26 |
| | | CO | -- | 151.34 |
| | | NO _x | -- | 2407.04 |
| | | PM | -- | 15.39 |
| | | HCl | -- | 4.38 |
| | | Cl ₂ | -- | 1.06 |
| | | SO ₂ | -- | 1.00 |
| PF416 | Boiler Fugitive (4) | VOC | 0.07 | 0.31 |
| PT399 | Misc Tanks | VOC | 0.01 | 0.01 |
| PW450 | Wastewater Fugitive (4) | VOC | 0.05 | 0.01 |
| PC22 | Carbon Drum | VOC | 0.01 | 0.01 |
| PC425 | Drum | VOC | 0.03 | 0.01 |
| PC426 | Drum | VOC | 0.01 | 0.01 |

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| | | | lb/hr | TPY ** |
| PC23 | Carbon Drum | VOC | 0.01 | 0.01 |
| PF601 | North ADN Boiler Analyzer Vent | VOC | 0.01 | 0.01 |
| | | CO | 0.01 | 0.04 |
| | | NO _x | 0.08 | 0.35 |
| | | PM | 0.01 | 0.01 |
| | | HCl | 0.01 | 0.01 |
| | | Cl ₂ | 0.01 | 0.01 |
| | | SO ₂ | 0.01 | 0.01 |
| PF600 | South ADN Boiler Analyzer Vent | VOC | 0.01 | 0.01 |
| | | CO | 0.01 | 0.03 |
| | | NO _x | 0.06 | 0.27 |
| | | PM | 0.01 | 0.01 |
| | | HCl | 0.01 | 0.01 |
| | | Cl ₂ | 0.01 | 0.01 |
| | | SO ₂ | 0.01 | 0.01 |
| Maintenance Startup and Shutdown (MSS) Activities | | | | |
| MSS-FUG | MSS fugitives | VOC | 3.19 | 0.23 |
| | | NH ₃ | 0.01 | 0.01 |
| | | PM | 0.01 | 0.01 |
| TKCL-MSS | Combustion Device for Tank Cleaning | NO _x | 0.62 | 0.07 |
| | | CO | 0.03 | 0.01 |
| | | VOC | 3.34 | 0.31 |
| TOFA-MSS | Thermal Oxidizer for Maintenance | NO _x | 1.98 | 0.93 |
| | | CO | 1.13 | 1.31 |
| | | VOC | 32.30 | 0.68 |

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| | | | lb/hr | TPY ** |
| CCTEMP | Carbon Canister Promoter Area MSS | VOC | 0.11 | 0.03 |
| CBA | Carbon Canister during VOC Absorber Maintenance | VOC | 2.85 | 1.05 |
| ENGINE-MSS | Portable Engines | NO _x | 8.02 | 3.78 |
| | | VOC | 0.16 | 0.43 |
| | | CO | 3.61 | 2.01 |
| | | SO ₂ | 0.01 | 0.01 |
| | | PM ₁₀ | 0.10 | 0.34 |

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- (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
CO - carbon monoxide
NO_x - total oxides of nitrogen
NH₃ - ammonia
SO₂ - sulfur dioxide
HCl - hydrogen chloride
Cl₂ - chlorine
PM - particulate matter, suspended in the atmosphere, including PM₁₀
PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
 - (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
 - (5) Hourly maximum allowable MSS emissions of CO and HCl are less than hourly allowable routine emission limits. Annual MSS emissions are within the annual routine operation limits for this EPN.
 - (6) Hourly maximum allowable MSS emissions of all contaminants are less than or equal to hourly allowable routine emission limits. Annual MSS emissions are within allowable annual routine limits.
 - (7) Hourly maximum allowable MSS emissions of all contaminants for this EPN are less than hourly allowable routine emission limits. Except where listed annual MSS emissions of each contaminant are within allowable annual routine emission limits.
- * Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year 8,760

** Compliance with annual emission limits is based on a rolling 12-month period.

*** lb/hr limits for North and South ADN Boilers are based on a 30-day rolling average

Date July 28, 2011