

Emission Sources - Maximum Allowable Emission Rates

Permit Number 37979 and N009

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 (8) |
| BOIL-Y1801 | 30-Barg Boiler | NO _x | 8.06 | 8.76 |
| | | SO ₂ | 2.79 | 3.88 |
| | | CO | 15.92 | 11.10 |
| | | PM/PM ₁₀ | 1.51 | 2.11 |
| | | VOC | 1.09 | 1.10 |
| | Boiler startup | NO _x (9) | 24.18 | - |
| | | CO (9) | 47.76 | - |
| BOIL-Y1801 | 30-Barg Boiler (6) | NO _x | 1.99 | 8.72 |
| | | SO ₂ | 0.29 | 1.28 |
| | | CO | 13.93 | 30.51 |
| | | PM/PM ₁₀ /PM _{2.5} | 1.54 | 6.76 |
| | | VOC | 1.09 | 4.79 |
| | | NH ₃ | 0.92 | 4.01 |
| | Boiler startup (6) | NO _x (9) | 20.00 | - |
| | | CO (9) | 41.79 | - |
| CTWR-1701 | Cooling Tower | PM/PM ₁₀ | 0.12 | 0.53 |
| | | VOC | 1.26 | 5.52 |
| LOAD-FUG | Tank Truck Loading | VOC | 0.12 | 0.03 |

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| | | | | |
|------------|-------------------------------------|--------------------------------|-------|-------|
| | | Organic HAPs | 0.12 | 0.03 |
| OSBL-FUG | Fugitives (4) | VOC | 0.73 | 3.20 |
| | | HAPs | 0.49 | 2.12 |
| | | NH ₃ (6) | 0.01 | 0.06 |
| V-1609 | H ₂ SO ₄ Tank | H ₂ SO ₄ | 0.01 | 0.01 |
| TK1614 | Neutralization Tank | H ₂ SO ₄ | 0.01 | 0.01 |
| THOX-Y1907 | OSBL Thermal Oxidizer | NO _x | 1.00 | 4.38 |
| | | SO ₂ | 3.46 | 15.16 |
| | | CO | 1.10 | 4.82 |
| | | PM/PM ₁₀ | 1.23 | 5.39 |
| | | VOC | 0.24 | 0.99 |
| | | Organic HAPs | 0.12 | 0.43 |
| | OSBL Thermal Oxidizer Startup | NO _x (9) | 3 | - |
| | | CO (9) | 3.3 | - |
| FIRE-PUMPS | Firewater Pumps | NO _x | 23.25 | 2.56 |
| | | CO | 5.01 | 0.55 |
| | | SO ₂ | 1.54 | 0.17 |
| | | PM | 1.65 | 0.18 |
| | | VOC | 1.89 | 0.21 |
| DIESEL-TNK | Diesel Fuel Storage Tanks | VOC | 0.02 | 0.01 |
| GAS-TK | Gasoline Storage Tank | VOC | 4.15 | 0.02 |
| DIESEL-TK2 | Diesel Storage Tank | VOC | 0.74 | 0.02 |
| LUBE-TK | Lube Oil Storage Tank | VOC | 0.14 | 0.01 |

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| | | | | |
|------------|-----------------------------------------------|---------------------|-------|-------|
| TK-1703 | Tank 1703 | VOC | 0.09 | 0.01 |
| AA-FUG | AA Fugitives (4) | Total VOC (5) | 1.98 | 8.66 |
| | | Propylene | 0.18 | 0.69 |
| | | Total HAPs | 1.76 | 7.70 |
| | | CO | 0.01 | 0.01 |
| THOX-Y1170 | AA Thermal Oxidizer (7) | Total VOC (5) | 5.73 | 22.65 |
| | | Propylene | 0.45 | 1.96 |
| | | Total HAPs | 1.62 | 6.19 |
| | | NO _x | 13.51 | 43.93 |
| | | SO ₂ | 2.20 | 9.64 |
| | | CO | 15.87 | 50.24 |
| | | PM/PM ₁₀ | 14.17 | 52.12 |
| | AA Thermal Oxidizer Startup (7) | NO _x (9) | 40.53 | - |
| | | CO (9) | 47.61 | - |
| SK-1186 | AA Thermal Oxidizer (HRSG Stack) (7) | Total VOC (5) | 5.73 | 22.65 |
| | | Propylene | 0.45 | 1.96 |
| | | Total HAPs | 1.62 | 6.19 |
| | | NO _x | 13.51 | 43.93 |
| | | SO ₂ | 2.20 | 9.64 |
| | | CO | 15.87 | 50.24 |
| | | PM/PM ₁₀ | 14.17 | 52.12 |
| | AA Thermal Oxidizer Startup. (HRSG Stack) (7) | NO _x (9) | 40.53 | - |
| | | CO (9) | 47.61 | - |

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| | | | | |
|------------|-----------------------------------|---------------------|-------|------|
| AA-MATL | Material Handling | PM/PM ₁₀ | 0.78 | 0.06 |
| DEGREASE-1 | Degreaser | VOC | 0.01 | 0.01 |
| WASH-PAD | Wash Pad | VOC | 0.26 | 0.12 |
| | | Organic HAPs | 0.26 | 0.12 |
| TANKS | Uncontrolled Tank Standing Losses | VOC | 31.91 | 2.68 |
| AA-MNTC | Maintenance Activities | Total VOC | 19.47 | 1.09 |
| | | NO _x | 0.04 | 0.01 |
| | | CO | 0.04 | 0.01 |

- (1) Emission point identification - either specific equipment designation or emission point number (EPN) 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
 NH₃ - ammonia
 NO_x - total oxides of nitrogen
 SO₂ - sulfur dioxide
 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.
 PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter.
 CO - carbon monoxide
 H₂SO₄ - sulfuric acid
 HAP - hazardous air pollutants
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) The total VOC emissions include propylene and organic HAPs.
- (6) Effective upon start of operation of the SCR (permit amendment submitted October 29, 2009).
- (7) Emissions represent total combined emission rates from EPNs THOX-Y1170 and SK1186.
- (8) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (9) Annual emissions from MSS activities (startup) are included in annual limits for the respective production EPNs.

Date: October 18, 2012

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