**Table C-1**
**Monroe Energy, LLC - Trainer, PA Refinery**
**PSD Baseline Actual Emission Rates**

| Emission Unit | | Emission Rate (tpy) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | $PM_{10}$ | $PM_{2.5}$ | $SO_2$ | $NO_2$ | VOC | CO | Lead | $H_2S$ | TRS | $CO_2$ | $N_2O$ | $CH_4$ | Total GHG | $CO_2e^{(a)}$ |
| 101 | FCC Unit | 43.06 | 63.93 | 41.79 | 28.86 | 233.46 | 3.15 | 15.63 | 2.47E-04 | - | - | 499,375.51 | 2.93 | 14.67 | 499,393.10 | 500,614.22 |
| 733 | FCCU Feed Heater | 0.10 | 0.42 | 0.58 | 0.62 | 2.56 | 0.42 | 0.93 | 3.73E-05 | 0.01 | 0.01 | 16,695.75 | 0.17 | 0.85 | 16,696.77 | 16,767.57 |
| 735 | Kerosene/HCN HTU Feed Heater | 0.22 | 0.36 | 0.30 | 0.33 | 5.36 | 0.22 | 3.23 | 1.82E-05 | 2.74E-03 | 2.77E-03 | 4,319.92 | 0.04 | 0.22 | 4320.18 | 4,338.50 |
| 736 | Diesel HTU Heater | 0.24 | 0.42 | 0.48 | 0.55 | 11.74 | 0.20 | 3.49 | 3.35E-05 | 0.01 | 0.01 | 13,802.45 | 0.14 | 0.70 | 13,803.30 | 13,861.83 |
| 741 | D2/VGO Hydrotreater Feed Heater | 0.43 | 0.33 | 0.20 | 0.72 | 9.04 | 0.50 | 7.44 | 4.78E-05 | 0.01 | 0.01 | 23,209.06 | 0.24 | 1.18 | 23,210.47 | 23,308.90 |
| 737 | Naphtha HDS Heater | 1.19 | 1.87 | 1.92 | 2.01 | 25.95 | 1.39 | 20.86 | 1.22E-04 | 0.02 | 0.02 | 33,037.72 | 0.34 | 1.68 | 33039.73 | 33,179.83 |
| 738 | Platformer Feed Heater | 8.45 | 13.44 | 13.90 | 14.58 | 148.25 | 10.06 | 1.57 | 9.42E-04 | 0.19 | 0.19 | 284,157.46 | 2.89 | 14.45 | 284,174.80 | 285,379.82 |
| 739 | Isocracker 1st Stage Heater | 0.55 | 0.96 | 1.01 | 1.06 | 15.96 | 0.73 | 11.21 | 6.49E-05 | 0.01 | 0.01 | 14,711.55 | 0.15 | 0.75 | 14712.45 | 14,774.84 |
| 740 | Isocracker Splitter Reboiler | 0.69 | 1.19 | 1.21 | 1.27 | 15.94 | 0.88 | 13.38 | 7.83E-05 | 0.01 | 0.01 | 18,382.52 | 0.19 | 0.93 | 18383.64 | 18,461.59 |
| 742 | VCD 541 VAC Heater | 0.18 | 0.71 | 0.70 | 0.76 | 12.75 | 0.50 | 7.34 | 4.31E-05 | 0.01 | 0.01 | 13,793.59 | 0.14 | 0.70 | 13794.44 | 13,852.93 |
| 743 | VCD 542 VAC Heater | 0.44 | 0.78 | 0.70 | 0.41 | 4.02 | 0.02 | 0.01 | 2.38E-05 | 0.01 | 0.01 | 17,771.31 | 0.18 | 0.90 | 17772.39 | 17,847.75 |
| 746 | VCD 544 VAC Heater | 1.35 | 2.88 | 2.77 | 2.34 | 12.49 | 2.11 | 1.34 | 1.40E-04 | 0.02 | 0.02 | 35,464.65 | 0.36 | 1.80 | 35466.81 | 35,617.21 |
| 744 | ACD 543 Crude Heater | 4.32 | 7.22 | 7.36 | 8.04 | 39.50 | 5.33 | 81.32 | 4.82E-04 | 0.09 | 0.09 | 143,860.54 | 1.46 | 7.31 | 143869.31 | 144,479.38 |
| 745 | ACD 544 Crude Heater | 4.68 | 7.59 | 7.60 | 8.30 | 44.94 | 5.50 | 83.63 | 4.91E-04 | 0.09 | 0.09 | 145,398.35 | 1.48 | 7.39 | 145407.22 | 146,023.81 |
| 34 | Boiler 9 | 0.53 | 1.69 | 0.55 | 1.66 | 4.16 | 0.04 | 1.17 | 4.51E-04 | 0.06 | 0.06 | 72,880.82 | 0.14 | 1.37 | 72,882.33 | 72,956.09 |
| 35 | Boiler 10 | 0.38 | 1.06 | 0.46 | 1.58 | 3.90 | 0.03 | 8.72 | 4.32E-04 | 0.06 | 0.06 | 83,481.92 | 0.16 | 1.57 | 83,483.65 | 83,568.14 |
| 102 | SRU | 0.10 | 0.38 | 0.32 | 18.24 | 4.33 | 0.23 | 3.56 | 2.04E-05 | 0.00 | - | 2,852.70 | 0.06 | 5.88E-03 | 2,852.76 | 2,870.38 |
| 103 | Main Flare | 4.05 | 5.04 | 5.04 | 11.13 | 9.99 | 20.56 | 58.11 | 1.14E-04 | 14.23 | - | 51,382.53 | 0.96 | 8.75 | 51,392.24 | 51,887.23 |
| 165 | Tank 93 | - | - | - | - | - | 4.59 | - | - | - | - | - | - | - | - | - |
| 166 | Tank 94 | - | - | - | - | - | 1.96 | - | - | - | - | - | - | - | - | - |
| 126 | Tank 95 | - | - | - | - | - | 2.44 | - | - | - | - | - | - | - | - | - |
| 127 | Tank 96 | - | - | - | - | - | 3.37 | - | - | - | - | - | - | - | - | - |
| 137 | Tank 152 | - | - | - | - | - | 2.34 | - | - | - | - | - | - | - | - | - |
| 138 | Tank 153 | - | - | - | - | - | 0.16 | - | - | - | - | - | - | - | - | - |
| 140 | Tank 155 | - | - | - | - | - | 0.13 | - | - | - | - | - | - | - | - | - |
| 142 | Tank 157 | - | - | - | - | - | 0.15 | - | - | - | - | - | - | - | - | - |
| 300 | Tank 158 (Source ID 193) | - | - | - | - | - | 1.06 | - | - | - | - | - | - | - | - | - |
| 143 | Tank 159 | - | - | - | - | - | 4.08 | - | - | - | - | - | - | - | - | - |
| 194 | Tank 160 | - | - | - | - | - | 4.69 | - | - | - | - | - | - | - | - | - |
| 144 | Tank 161 | - | - | - | - | - | 2.68 | - | - | - | - | - | - | - | - | - |
| 145 | Tank 162 | - | - | - | - | - | 0.64 | - | - | - | - | - | - | - | - | - |
| 146 | Tank 163 | - | - | - | - | - | 1.82 | - | - | - | - | - | - | - | - | - |
| 147 | Tank 164 | - | - | - | - | - | 1.88 | - | - | - | - | - | - | - | - | - |
| 148 | Tank 165 | - | - | - | - | - | 2.23 | - | - | - | - | - | - | - | - | - |
| 149 | Tank 166 | - | - | - | - | - | 2.89 | - | - | - | - | - | - | - | - | - |
| 150 | Tank 168 | - | - | - | - | - | 1.69 | - | - | - | - | - | - | - | - | - |
| 152 | Tank 170 | - | - | - | - | - | 4.21 | - | - | - | - | - | - | - | - | - |
| 155 | Tank 174 | - | - | - | - | - | 3.99 | - | - | - | - | - | - | - | - | - |
| 156 | Tank 175 | - | - | - | - | - | 6.36 | - | - | - | - | - | - | - | - | - |
| 157 | Tank 178 | - | - | - | - | - | 3.53 | - | - | - | - | - | - | - | - | - |
| 160 | Tank 181 | - | - | - | - | - | 2.24 | - | - | - | - | - | - | - | - | - |
| 161 | Tank 182 | - | - | - | - | - | 4.38 | - | - | - | - | - | - | - | - | - |
| 163 | Tank 185 | - | - | - | - | - | 8.82 | - | - | - | - | - | - | - | - | - |
| 164 | Tank 186 | - | - | - | - | - | 5.54 | - | - | - | - | - | - | - | - | - |
| ***Total Baseline Emissions (tons/24 months)*** | | **141.92** | **220.54** | **173.78** | **204.95** | **1,208.71** | **259.48** | **645.90** | **7.58E-03** | **29.70** | **1.25** | **2,949,157** | **23.95** | **129.63** | **2,949,310.23** | **2,959,534.50** |
| ***Total Baseline Actual Emissions*** | | **70.96** | **110.27** | **86.89** | **102.47** | **604.35** | **129.74** | **322.95** | **3.79E-03** | **14.85** | **0.62** | **1,474,578** | **11.98** | **64.81** | **1,474,655.12** | **1,479,767.25** |
| ***Baseline Period*** | | **Aug-13** | **Aug-13** | **Feb-13** | **Feb-13** | **Feb-13** | **Feb-13** | **Jan-13** | **Nov-12** | **Jan-09** | **Apr-09** | **Jun-09** | **Jun-09** | **Jun-09** | **Jun-09** | **Jun-09** |
| | | **Jul-15** | **Jul-15** | **Jan-15** | **Jan-15** | **Jan-15** | **Jan-15** | **Dec-14** | **Oct-14** | **Dec-10** | **Mar-11** | **May-11** | **May-11** | **May-11** | **May-11** | **May-11** |

[a] $CO_2e$ is carbon dioxide equivalent, calculated according to 40 CFR 98 Equation A-1:

$$CO_2e = \sum_{i=1}^{n} GHG_i \times GWP_i$$

where GHGi = annual mass emissions of greenhouse gas i (short tons/year)
GWPi = global warming potential of greenhouse gas i from the table below

| Pollutant | GWP (100 year) |
|---|---|
| $CO_2$ | 1 |
| $N_2O$ | 298 |
| $CH_4$ | 25 |

**Table C-2**
**Monroe Energy, LLC - Trainer, PA Refinery**
**NNSR Baseline Actual Emission Rates**

| Emission Unit | | Emission Rate (tpy) | | | | |
|---|---|---|---|---|---|---|
| | | $PM_{2.5}$ NNSR | | | Ozone NNSR | |
| | | $PM_{2.5}$ | $SO_2$ | $NO_X$ | $NO_X$ | VOC |
| 101 | FCC Unit | 41.79 | 28.86 | 233.46 | 233.46 | 3.15 |
| 733 | FCCU Feed Heater | 0.58 | 0.62 | 2.56 | 2.56 | 0.42 |
| 735 | Kerosene/HCN HTU Feed Heater | 0.30 | 0.33 | 5.36 | 5.36 | 0.22 |
| 736 | Diesel HTU Heater | 0.48 | 0.55 | 11.74 | 11.74 | 0.20 |
| 741 | D2/VGO Hydrotreater Feed Heater | 0.20 | 0.72 | 9.04 | 9.04 | 0.50 |
| 737 | Naphtha HDS Heater | 1.92 | 2.01 | 25.95 | 25.95 | 1.39 |
| 738 | Platformer Feed Heater | 13.90 | 14.58 | 148.25 | 148.25 | 10.06 |
| 739 | Isocracker 1st Stage Heater | 1.01 | 1.06 | 15.96 | 15.96 | 0.73 |
| 740 | Isocracker Splitter Reboiler | 1.21 | 1.27 | 15.94 | 15.94 | 0.88 |
| 742 | VCD 541 VAC Heater | 0.70 | 0.76 | 12.75 | 12.75 | 0.50 |
| 743 | VCD 542 VAC Heater | 0.70 | 0.41 | 4.02 | 4.02 | 0.02 |
| 746 | VCD 544 VAC Heater | 2.77 | 2.34 | 12.49 | 12.49 | 2.11 |
| 744 | ACD 543 Crude Heater | 7.36 | 8.04 | 39.50 | 39.50 | 5.33 |
| 745 | ACD 544 Crude Heater | 7.60 | 8.30 | 44.94 | 44.94 | 5.50 |
| 34 | Boiler 9 | 0.55 | 1.66 | 4.16 | 4.16 | 0.04 |
| 35 | Boiler 10 | 0.46 | 1.58 | 3.90 | 3.90 | 0.03 |
| 102 | SRU | 0.32 | 18.24 | 4.33 | 4.33 | 0.23 |
| 103 | Main Flare | 5.04 | 11.13 | 9.99 | 9.99 | 20.56 |
| 165 | Tank 93 | - | - | - | - | 4.59 |
| 166 | Tank 94 | - | - | - | - | 1.96 |
| 126 | Tank 95 | - | - | - | - | 2.44 |
| 127 | Tank 96 | - | - | - | - | 3.37 |
| 137 | Tank 152 | - | - | - | - | 2.34 |
| 138 | Tank 153 | - | - | - | - | 0.16 |
| 140 | Tank 155 | - | - | - | - | 0.13 |
| 142 | Tank 157 | - | - | - | - | 0.15 |
| 300 | Tank 158 (Source ID 193) | - | - | - | - | 1.06 |
| 143 | Tank 159 | - | - | - | - | 4.08 |
| 194 | Tank 160 | - | - | - | - | 4.69 |
| 144 | Tank 161 | - | - | - | - | 2.68 |
| 145 | Tank 162 | - | - | - | - | 0.64 |
| 146 | Tank 163 | - | - | - | - | 1.82 |
| 147 | Tank 164 | - | - | - | - | 1.88 |
| 148 | Tank 165 | - | - | - | - | 2.23 |
| 149 | Tank 166 | - | - | - | - | 2.89 |
| 150 | Tank 168 | - | - | - | - | 1.69 |
| 152 | Tank 170 | - | - | - | - | 4.21 |
| 155 | Tank 174 | - | - | - | - | 3.99 |
| 156 | Tank 175 | - | - | - | - | 6.36 |
| 157 | Tank 178 | - | - | - | - | 3.53 |
| 160 | Tank 181 | - | - | - | - | 2.24 |
| 161 | Tank 182 | - | - | - | - | 4.38 |
| 163 | Tank 185 | - | - | - | - | 8.82 |
| 164 | Tank 186 | - | - | - | - | 5.54 |
| ***Total Baseline Emissions (tons/24 months)*** | | **173.78** | **204.95** | **1,208.71** | **1,208.71** | **259.48** |
| ***Total Baseline Actual Emissions*** | | **86.89** | **102.47** | **604.35** | **604.35** | **129.74** |
| ***Baseline Period*** | | **Feb-13** | **Feb-13** | **Feb-13** | **Feb-13** | **Feb-13** |
| | | **Jan-15** | **Jan-15** | **Jan-15** | **Jan-15** | **Jan-15** |

**Table C-31**
**Monroe Energy, LLC - Trainer, PA Facility**
**Projected Future Actual Emissions**

| Emission Unit | | Emission Rate (tpy) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | $PM_{10}$ | $PM_{2.5}$ | $SO_2$ | $NO_X$ | VOC | CO | Lead | $H_2S$ | TRS | $CO_2e^{(a)}$ |
| 101 | FCC Unit | 84.62 | 110.60 | 96.21 | 88.82 | 432.52 | 3.20 | 16.35 | - | - | - | 756,643.87 |
| 733 | FCCU Feed Heater | 0.18 | 0.72 | 0.72 | 0.78 | 3.02 | 0.52 | 7.93 | 4.72E-05 | 8.56E-03 | 8.56E-03 | 13,159.88 |
| 735 | Kerosene/HCN HTU Feed Heater | 0.06 | 0.25 | 0.25 | 0.28 | 4.51 | 0.18 | 2.81 | 1.67E-05 | 3.09E-03 | 3.09E-03 | 4,749.00 |
| 736 | Diesel HTU Heater | 0.11 | 0.62 | 0.62 | 0.67 | 13.84 | 0.39 | 0.18 | 4.05E-05 | 7.45E-03 | 7.45E-03 | 11,443.37 |
| 741 | D2/VGO Hydrotreater Feed Heater | 0.15 | 0.59 | 0.59 | 0.61 | 7.71 | 0.42 | 6.48 | 3.86E-05 | 6.70E-03 | 6.70E-03 | 10,299.04 |
| 737 | Naphtha HDS Heater | 0.61 | 2.43 | 2.43 | 2.55 | 33.29 | 1.76 | 26.88 | 1.60E-04 | 0.03 | 0.03 | 43,484.82 |
| 738 | Platformer Feed Heater | 4.06 | 16.23 | 16.23 | 17.03 | 185.70 | 11.75 | 0.15 | 1.07E-03 | 0.18 | 0.18 | 282,079.15 |
| 739 | Isocracker 1st Stage Heater | 0.26 | 1.03 | 1.03 | 1.08 | 16.77 | 0.75 | 11.43 | 6.80E-05 | 0.01 | 0.01 | 18,881.57 |
| 740 | Isocracker Splitter Reboiler | 0.34 | 1.37 | 1.37 | 1.44 | 18.05 | 0.99 | 15.17 | 9.03E-05 | 0.02 | 0.02 | 25,175.42 |
| 742 | VCD 541 VAC Heater | 0.27 | 1.06 | 1.06 | 1.16 | 20.50 | 0.77 | 11.76 | 7.00E-05 | 0.01 | 0.01 | 20,598.07 |
| 743 | VCD 542 VAC Heater | 0.15 | 0.62 | 0.62 | 0.67 | 6.75 | 0.03 | 0.02 | 4.06E-05 | 7.45E-03 | 7.45E-03 | 11,443.37 |
| 746 | VCD 544 VAC Heater | 0.55 | 2.19 | 2.19 | 2.39 | 12.44 | 2.18 | 5.29 | 1.44E-04 | 0.03 | 0.03 | 40,623.97 |
| 744 | ACD 543 Crude Heater | 2.01 | 8.02 | 8.02 | 8.77 | 45.55 | 5.81 | 88.66 | 5.28E-04 | 0.10 | 0.10 | 148,763.85 |
| 745 | ACD 544 Crude Heater | 2.00 | 8.01 | 8.01 | 8.75 | 50.11 | 5.80 | 88.55 | 5.27E-04 | 0.10 | 0.10 | 148,763.85 |
| 34 | Boiler 9 | 0.72 | 5.69 | 5.07 | 1.04 | 4.41 | 0.31 | 1.34 | 4.80E-04 | 0.09 | 0.09 | 115,912.86 |
| 35 | Boiler 10 | 0.40 | 3.07 | 2.97 | 2.97 | 3.93 | 0.27 | 4.93 | 4.60E-04 | 0.08 | 0.08 | 110,997.52 |
| 102 | SRU | 0.11 | 0.44 | 0.44 | 40.33 | 5.83 | 0.32 | 4.90 | 2.92E-05 | 0.00 | - | 31,828.54 |
| 103 | Main Flare | 1.25 | 1.74 | 1.74 | 4.15 | 3.15 | 6.48 | 17.13 | 2.14E-04 | 2.47 | - | 6,365.71 |
| 165 | Tank 93 | - | - | - | - | - | 1.92 | - | - | - | - | - |
| 166 | Tank 94 | - | - | - | - | - | 2.76 | - | - | - | - | - |
| 126 | Tank 95 | - | - | - | - | - | 3.46 | - | - | - | - | - |
| 127 | Tank 96 | - | - | - | - | - | 4.45 | - | - | - | - | - |
| 137 | Tank 152 | - | - | - | - | - | 5.06 | - | - | - | - | - |
| 138 | Tank 153 | - | - | - | - | - | 0.19 | - | - | - | - | - |
| 140 | Tank 155 | - | - | - | - | - | 0.18 | - | - | - | - | - |
| 142 | Tank 157 | - | - | - | - | - | 0.21 | - | - | - | - | - |
| 300 | Tank 158 (Source ID 193) | - | - | - | - | - | 13.15 | - | - | - | - | - |
| 143 | Tank 159 | - | - | - | - | - | 3.97 | - | - | - | - | - |
| 194 | Tank 160 | - | - | - | - | - | 0.22 | - | - | - | - | - |
| 144 | Tank 161 | - | - | - | - | - | 6.04 | - | - | - | - | - |
| 145 | Tank 162 | - | - | - | - | - | 3.25 | - | - | - | - | - |
| 146 | Tank 163 | - | - | - | - | - | 4.25 | - | - | - | - | - |
| 147 | Tank 164 | - | - | - | - | - | 3.79 | - | - | - | - | - |
| 148 | Tank 165 | - | - | - | - | - | 8.26 | - | - | - | - | - |
| 149 | Tank 166 | - | - | - | - | - | 3.55 | - | - | - | - | - |
| 150 | Tank 168 | - | - | - | - | - | 2.89 | - | - | - | - | - |
| 152 | Tank 170 | - | - | - | - | - | 6.13 | - | - | - | - | - |
| 155 | Tank 174 | - | - | - | - | - | 12.01 | - | - | - | - | - |
| 156 | Tank 175 | - | - | - | - | - | 7.43 | - | - | - | - | - |
| 157 | Tank 178 | - | - | - | - | - | 3.23 | - | - | - | - | - |
| 160 | Tank 181 | - | - | - | - | - | 8.75 | - | - | - | - | - |
| 161 | Tank 182 | - | - | - | - | - | 20.53 | - | - | - | - | - |
| 163 | Tank 185 | - | - | - | - | - | 11.26 | - | - | - | - | - |
| 164 | Tank 186 | - | - | - | - | - | 5.47 | - | - | - | - | - |
| N/A | New Feed Heaters | 3.15 | 3.15 | 3.15 | 4.42 | 22.04 | 3.15 | 17.08 | 2.66E-04 | - | - | - |
| N/A | New Cooling Tower | 0.16 | 0.16 | 0.16 | - | - | 6.02 | - | - | - | - | - |
| N/A | Additional Fugitive Emissions | - | - | - | - | - | 5.13 | - | - | - | - | - |
| ***Total Projected Future Actual Emissions*** | | ***101.14*** | ***168.00*** | ***152.89*** | ***187.93*** | ***890.12*** | ***198.63*** | ***327.01*** | ***4.29E-03*** | ***3.15*** | ***0.68*** | ***1,801,213.86*** |

[a] $CO_2e$ is carbon dioxide equivalent, calculated according to 40 CFR 98 Equation A-1:

$$CO_2e = \sum_{i=1}^{n} GHG_i \times GWP_i$$

where GHGi = annual mass emissions of greenhouse gas i (short tons/year)
GWPi = global warming potential of greenhouse gas i from the table below

| Pollutant | GWP (100 year) |
|---|---|
| $CO_2$ | 1 |
| $N_2O$ | 298 |
| $CH_4$ | 25 |

**Table C-32**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Emissions Which Could Have Been Accomodated (CHA)**

| Emission Unit | | | Emission Rate (tpy) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PM | $PM_{10}$ | $PM_{2.5}$ | $SO_2$ | $NO_X$ | VOC | CO | Lead | $H_2S$ | TRS | $CO_2$ | $N_2O$ | $CH_4$ |
| 101 | FCC Unit | Highest Emitting Month | Mar-15 | Mar-15 | Jan-15 | Dec-14 | Dec-14 | Mar-13 | May-13 | Jan-14 | - | - | Jul-10 | Jul-10 | Jul-10 |
| | | Monthly Emissions | 9.79 | 11.73 | 9.39 | 7.94 | 37.87 | 0.27 | 2.95 | 3.48E-05 | 0.00 | 0.00 | 46,689.55 | 0.27 | 1.37 |
| | | Annualized Emissions (CHA) | 93.30 | 140.78 | 112.69 | 95.25 | 454.41 | 3.26 | 35.45 | 4.18E-04 | 0.00 | 0.00 | 560,274.64 | 3.28 | 16.46 |
| 733 | FCCU Feed Heater | Highest Emitting Month | Jun-14 | Jun-14 | Jun-14 | Jun-14 | Mar-13 | Jun-14 | Mar-13 | Jun-14 | Jul-09 | Jul-09 | Jul-09 | Jul-09 | Jul-09 |
| | | Monthly Emissions | 0.03 | 0.13 | 0.13 | 0.14 | 0.56 | 0.09 | 0.94 | 8.32E-06 | 1.85E-03 | 1.85E-03 | 2,833.44 | 0.03 | 0.14 |
| | | Annualized Emissions (CHA) | 0.38 | 1.52 | 1.52 | 1.66 | 6.67 | 1.10 | 11.29 | 9.99E-05 | 0.02 | 0.02 | 34,001.33 | 0.35 | 1.73 |
| 735 | Kerosene/HCN HTU Feed Heater | Highest Emitting Month | Dec-14 | Jul-15 | Jan-15 | Jan-15 | Jan-15 | Jan-15 | Dec-14 | Aug-14 | Jan-09 | Jan-11 | Jan-11 | Jan-11 | Jan-11 |
| | | Monthly Emissions | 0.04 | 0.04 | 0.04 | 0.04 | 0.74 | 0.03 | 0.44 | 2.38E-06 | 3.12E-04 | 3.63E-04 | 555.94 | 5.65E-03 | 0.03 |
| | | Annualized Emissions (CHA) | 0.47 | 0.50 | 0.48 | 0.53 | 8.84 | 0.35 | 5.23 | 2.85E-05 | 3.74E-03 | 4.36E-03 | 6,671.34 | 0.07 | 0.34 |
| 736 | Diesel HTU Heater | Highest Emitting Month | Apr-14 | Jul-15 | May-13 | May-13 | May-13 | May-13 | Jan-13 | Jan-13 | Mar-10 | Mar-10 | Mar-10 | Mar-10 | Mar-10 |
| | | Monthly Emissions | 0.05 | 0.06 | 0.08 | 0.08 | 1.90 | 0.06 | 0.91 | 5.39E-06 | 1.00E-03 | 1.00E-03 | 1,529.58 | 0.02 | 0.08 |
| | | Annualized Emissions (CHA) | 0.63 | 0.68 | 0.93 | 1.01 | 22.76 | 0.67 | 10.87 | 6.47E-05 | 0.01 | 0.01 | 18,354.99 | 0.19 | 0.93 |
| 741 | D2/VGO Hydrotreater Feed Heater | Highest Emitting Month | Jul-14 | Jun-15 | Jan-15 | May-13 | May-13 | May-13 | May-13 | May-13 | Jan-09 | Mar-11 | May-11 | May-11 | May-11 |
| | | Monthly Emissions | 0.07 | 0.10 | 0.06 | 0.12 | 1.53 | 0.08 | 1.28 | 7.64E-06 | 1.46E-03 | 1.85E-03 | 2,879.96 | 0.03 | 0.15 |
| | | Annualized Emissions (CHA) | 0.79 | 1.14 | 0.75 | 1.46 | 18.34 | 1.01 | 15.41 | 9.17E-05 | 0.02 | 0.02 | 34,559.53 | 0.35 | 1.76 |
| 737 | Naphtha HDS Heater | Highest Emitting Month | Oct-14 | Oct-14 | Oct-14 | Oct-14 | Oct-14 | Oct-14 | Oct-14 | Oct-14 | Oct-10 | Oct-10 | Oct-10 | Oct-10 | Oct-10 |
| | | Monthly Emissions | 0.20 | 0.20 | 0.20 | 0.21 | 3.09 | 0.14 | 2.19 | 1.30E-05 | 2.43E-03 | 2.43E-03 | 3,714.73 | 0.04 | 0.19 |
| | | Annualized Emissions (CHA) | 2.37 | 2.37 | 2.37 | 2.49 | 37.04 | 1.72 | 26.25 | 1.56E-04 | 0.03 | 0.03 | 44,576.75 | 0.45 | 2.27 |
| 738 | Platformer Feed Heater | Highest Emitting Month | Mar-14 | Jul-15 | Mar-13 | Mar-13 | Mar-13 | Mar-13 | Mar-13 | Mar-13 | Mar-10 | Mar-10 | Mar-10 | Mar-10 | Mar-10 |
| | | Monthly Emissions | 1.26 | 1.29 | 1.40 | 1.47 | 16.00 | 1.01 | 0.59 | 9.20E-05 | 0.02 | 0.02 | 26,617.95 | 0.27 | 1.35 |
| | | Annualized Emissions (CHA) | 15.12 | 15.46 | 16.78 | 17.60 | 191.96 | 12.14 | 7.11 | 1.10E-03 | 0.21 | 0.21 | 319,415.38 | 3.25 | 16.24 |
| 739 | Isocracker 1st Stage Heater | Highest Emitting Month | Dec-14 | Aug-13 | May-13 | May-13 | May-13 | May-13 | May-13 | May-13 | Jan-10 | Jan-10 | Jan-10 | Jan-10 | Jan-10 |
| | | Monthly Emissions | 0.09 | 0.12 | 0.12 | 0.13 | 1.93 | 0.09 | 1.37 | 8.13E-06 | 1.27E-03 | 1.27E-03 | 1,937.43 | 0.02 | 0.10 |
| | | Annualized Emissions (CHA) | 1.07 | 1.39 | 1.49 | 1.56 | 23.20 | 1.08 | 16.45 | 9.76E-05 | 0.02 | 0.02 | 23,249.17 | 0.24 | 1.18 |
| 740 | Isocracker Splitter Reboiler | Highest Emitting Month | May-14 | May-14 | Jul-13 | Jul-13 | Jul-13 | Jul-13 | Jul-13 | Jul-13 | May-10 | Mar-11 | Mar-11 | Mar-11 | Mar-11 |
| | | Monthly Emissions | 0.13 | 0.13 | 0.13 | 0.14 | 1.74 | 0.10 | 1.46 | 8.72E-06 | 1.26E-03 | 1.30E-03 | 1,986.38 | 0.02 | 0.10 |
| | | Annualized Emissions (CHA) | 1.50 | 1.50 | 1.59 | 1.67 | 20.92 | 1.15 | 17.58 | 1.05E-04 | 0.02 | 0.02 | 23,836.53 | 0.24 | 1.21 |
| 742 | VCD 541 VAC Heater | Highest Emitting Month | Jul-15 | Jul-15 | Aug-14 | Aug-14 | Aug-14 | Aug-14 | Aug-14 | Aug-14 | Jan-09 | Apr-10 | Apr-10 | Apr-10 | Apr-10 |
| | | Monthly Emissions | 0.02 | 0.10 | 0.09 | 0.09 | 1.61 | 0.06 | 0.95 | 5.63E-06 | 1.03E-03 | 9.72E-04 | 1,487.03 | 0.02 | 0.08 |
| | | Annualized Emissions (CHA) | 0.29 | 1.17 | 1.03 | 1.12 | 19.27 | 0.74 | 11.34 | 6.75E-05 | 0.01 | 0.01 | 17,844.39 | 0.18 | 0.91 |
| 743 | VCD 542 VAC Heater | Highest Emitting Month | Apr-14 | Apr-14 | Apr-14 | Apr-14 | Apr-14 | Apr-14 | Apr-14 | Apr-14 | Jan-09 | Jul-10 | Jul-10 | Jul-10 | Jul-10 |
| | | Monthly Emissions | 0.11 | 0.11 | 0.11 | 0.06 | 0.63 | 2.57E-03 | 1.95E-03 | 3.83E-06 | 1.20E-03 | 1.12E-03 | 1,719.25 | 0.02 | 0.09 |
| | | Annualized Emissions (CHA) | 1.32 | 1.32 | 1.32 | 0.76 | 7.52 | 0.03 | 0.02 | 4.60E-05 | 0.01 | 0.01 | 20,631.05 | 0.21 | 1.05 |
| 746 | VCD 544 VAC Heater | Highest Emitting Month | Mar-14 | Aug-13 | Aug-13 | Aug-13 | Mar-13 | Aug-13 | Jan-13 | Aug-13 | Jan-10 | Jan-10 | Jan-10 | Jan-10 | Jan-10 |
| | | Monthly Emissions | 0.27 | 0.28 | 0.28 | 0.24 | 1.31 | 0.21 | 0.45 | 1.45E-05 | 2.50E-03 | 2.50E-03 | 3,819.02 | 0.04 | 0.19 |
| | | Annualized Emissions (CHA) | 3.20 | 3.36 | 3.36 | 2.88 | 15.71 | 2.56 | 5.41 | 1.74E-04 | 0.03 | 0.03 | 45,828.20 | 0.47 | 2.33 |
| 744 | ACD 543 Crude Heater | Highest Emitting Month | Apr-14 | Sep-13 | Sep-13 | Sep-13 | Oct-13 | Sep-13 | Sep-13 | Sep-13 | Mar-10 | Mar-10 | May-11 | May-11 | May-11 |
| | | Monthly Emissions | 0.72 | 0.73 | 0.73 | 0.80 | 4.14 | 0.53 | 8.07 | 4.80E-05 | 8.80E-03 | 8.80E-03 | 13,850.21 | 0.14 | 0.70 |
| | | Annualized Emissions (CHA) | 8.66 | 8.76 | 8.76 | 9.57 | 49.71 | 6.34 | 96.84 | 5.76E-04 | 0.11 | 0.11 | 166,202.49 | 1.69 | 8.45 |
| 745 | ACD 544 Crude Heater | Highest Emitting Month | Jan-14 | Jan-14 | Jan-14 | Jan-14 | Jan-14 | Jan-14 | Jan-14 | Jan-14 | Mar-10 | Mar-10 | Mar-10 | Mar-10 | Mar-10 |
| | | Monthly Emissions | 0.77 | 0.77 | 0.77 | 0.84 | 4.68 | 0.56 | 8.50 | 5.06E-05 | 8.58E-03 | 8.58E-03 | 13,123.53 | 0.13 | 0.67 |
| | | Annualized Emissions (CHA) | 9.23 | 9.23 | 9.23 | 10.08 | 56.20 | 6.68 | 102.01 | 6.07E-04 | 0.10 | 0.10 | 157,482.30 | 1.60 | 8.01 |
| 34 | Boiler 9 | Highest Emitting Month | Jan-15 | Jan-15 | Jan-15 | Jan-14 | Mar-13 | Jan-15 | Jan-14 | Mar-13 | - | - | Aug-10 | Aug-10 | Aug-10 |
| | | Monthly Emissions | 0.07 | 0.47 | 0.44 | 0.17 | 0.41 | 0.03 | 0.12 | 4.66E-05 | 7.19E-03 | 7.19E-03 | 9,097.35 | 0.02 | 0.17 |
| | | Annualized Emissions (CHA) | 0.89 | 5.62 | 5.29 | 2.03 | 4.94 | 0.35 | 1.41 | 5.60E-04 | 0.09 | 0.09 | 109,168.22 | 0.21 | 2.06 |
| 35 | Boiler 10 | Highest Emitting Month | Dec-13 | Jan-15 | Jan-15 | Mar-14 | Dec-13 | Jan-15 | Dec-13 | Dec-13 | - | - | Aug-10 | Aug-10 | Aug-10 |
| | | Monthly Emissions | 0.05 | 0.26 | 0.26 | 0.17 | 0.42 | 0.03 | 1.39 | 4.54E-05 | 7.48E-03 | 7.48E-03 | 9,469.05 | 0.02 | 0.18 |
| | | Annualized Emissions (CHA) | 0.58 | 3.14 | 3.07 | 2.07 | 5.09 | 0.31 | 16.67 | 5.45E-04 | 0.09 | 0.09 | 113,628.58 | 0.21 | 2.14 |
| 102 | SRU | Highest Emitting Month | Mar-15 | Mar-15 | Jan-14 | Nov-14 | Jan-15 | Jan-14 | Jan-14 | Jan-14 | - | - | May-11 | May-11 | May-11 |
| | | Monthly Emissions | 0.01 | 0.05 | 0.04 | 2.33 | 0.57 | 0.03 | 0.47 | 2.79E-06 | 0.00 | 0.00 | 295.23 | 6.09E-03 | 6.09E-04 |
| | | Annualized Emissions (CHA) | 0.14 | 0.58 | 0.51 | 27.98 | 6.81 | 0.37 | 5.62 | 3.34E-05 | 0.00 | 0.00 | 3,542.78 | 0.07 | 7.31E-03 |
| 103 | Main Flare | Highest Emitting Month | Feb-15 | Feb-15 | Jul-13 | Jul-13 | Jul-13 | Jul-13 | Jan-13 | Jan-13 | Jan-10 | - | Jan-10 | Jan-10 | Jan-10 |
| | | Monthly Emissions | 0.57 | 0.68 | 0.78 | 2.28 | 1.52 | 3.13 | 13.23 | 3.41E-05 | 1.52 | 0.00 | 6,024.93 | 0.11 | 1.14 |
| | | Annualized Emissions (CHA) | 6.83 | 8.11 | 9.33 | 25.00 | 18.23 | 37.52 | 158.82 | 4.09E-04 | 18.26 | 0.00 | 72,299.13 | 1.30 | 13.62 |
| 165 | Tank 93 | Highest Emitting Month | - | - | - | - | - | Jun-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.17 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 2.03 | - | - | - | - | - | - | - |
| 166 | Tank 94 | Highest Emitting Month | - | - | - | - | - | Mar-13 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.24 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 2.91 | - | - | - | - | - | - | - |
| 126 | Tank 95 | Highest Emitting Month | - | - | - | - | - | Jul-13 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.30 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 3.56 | - | - | - | - | - | - | - |
| 127 | Tank 96 | Highest Emitting Month | - | - | - | - | - | Mar-13 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.38 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 4.61 | - | - | - | - | - | - | - |
| 137 | Tank 152 | Highest Emitting Month | - | - | - | - | - | Feb-13 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.72 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 8.64 | - | - | - | - | - | - | - |
| 138 | Tank 153 | Highest Emitting Month | - | - | - | - | - | Feb-13 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.02 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 0.20 | - | - | - | - | - | - | - |
| 140 | Tank 155 | Highest Emitting Month | - | - | - | - | - | Apr-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.02 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 0.18 | - | - | - | - | - | - | - |
| 142 | Tank 157 | Highest Emitting Month | - | - | - | - | - | Mar-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.02 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 0.24 | - | - | - | - | - | - | - |
| 300 | Tank 158 (Source ID 193) | Highest Emitting Month | - | - | - | - | - | May-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 1.43 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 17.18 | - | - | - | - | - | - | - |
| 143 | Tank 159 | Highest Emitting Month | - | - | - | - | - | Mar-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.34 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 4.06 | - | - | - | - | - | - | - |

**Table C-32**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Emissions Which Could Have Been Accomodated (CHA)**

| Emission Unit | | | Emission Rate (tpy) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | PM | $PM_{10}$ | $PM_{2.5}$ | $SO_2$ | $NO_X$ | VOC | CO | Lead | $H_2S$ | TRS | $CO_2$ | $N_2O$ | $CH_4$ |
| 194 | Tank 160 | Highest Emitting Month | - | - | - | - | - | Jan-15 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.02 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 0.26 | - | - | - | - | - | - | - |
| 144 | Tank 161 | Highest Emitting Month | - | - | - | - | - | Mar-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.52 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 6.21 | - | - | - | - | - | - | - |
| 145 | Tank 162 | Highest Emitting Month | - | - | - | - | - | Feb-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.53 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 6.36 | - | - | - | - | - | - | - |
| 146 | Tank 163 | Highest Emitting Month | - | - | - | - | - | Jul-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.37 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 4.41 | - | - | - | - | - | - | - |
| 147 | Tank 164 | Highest Emitting Month | - | - | - | - | - | Feb-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.65 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 7.79 | - | - | - | - | - | - | - |
| 148 | Tank 165 | Highest Emitting Month | - | - | - | - | - | Feb-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 1.69 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 20.33 | - | - | - | - | - | - | - |
| 149 | Tank 166 | Highest Emitting Month | - | - | - | - | - | Aug-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.34 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 4.06 | - | - | - | - | - | - | - |
| 150 | Tank 168 | Highest Emitting Month | - | - | - | - | - | Jun-13 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.28 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 3.42 | - | - | - | - | - | - | - |
| 152 | Tank 170 | Highest Emitting Month | - | - | - | - | - | Mar-13 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.52 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 6.24 | - | - | - | - | - | - | - |
| 155 | Tank 174 | Highest Emitting Month | - | - | - | - | - | Jul-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 1.15 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 13.79 | - | - | - | - | - | - | - |
| 156 | Tank 175 | Highest Emitting Month | - | - | - | - | - | Feb-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.66 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 7.94 | - | - | - | - | - | - | - |
| 157 | Tank 178 | Highest Emitting Month | - | - | - | - | - | Feb-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.49 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 5.85 | - | - | - | - | - | - | - |
| 160 | Tank 181 | Highest Emitting Month | - | - | - | - | - | Feb-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 1.85 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 22.24 | - | - | - | - | - | - | - |
| 161 | Tank 182 | Highest Emitting Month | - | - | - | - | - | Feb-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 3.29 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 39.43 | - | - | - | - | - | - | - |
| 163 | Tank 185 | Highest Emitting Month | - | - | - | - | - | Jun-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.98 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 11.81 | - | - | - | - | - | - | - |
| 164 | Tank 186 | Highest Emitting Month | - | - | - | - | - | Sep-14 | - | - | - | - | - | - | - |
| | | Monthly Emissions | - | - | - | - | - | 0.55 | - | - | - | - | - | - | - |
| | | Annualized Emissions (CHA) | - | - | - | - | - | 6.60 | - | - | - | - | - | - | - |
| ***Total Capable of Accommodating Emissions*** | | | **146.78** | **206.63** | **180.49** | **204.72** | **967.62** | **287.74** | **543.77** | **0.01** | **19.03** | **0.77** | **1,771,567** | **14.36** | **80.69** |
| ***Baseline Period*** | | | **Aug-13** | **Aug-13** | **Feb-13** | **Feb-13** | **Feb-13** | **Feb-13** | **Jan-13** | **Nov-12** | **Jan-09** | **Apr-09** | **Jun-09** | **Jun-09** | **Jun-09** |
| | | | **Jul-15** | **Jul-15** | **Jan-15** | **Jan-15** | **Jan-15** | **Jan-15** | **Dec-14** | **Oct-14** | **Dec-10** | **Mar-11** | **May-11** | **May-11** | **May-11** |

**Table C-33**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Project Emission Increases Summary**

| Source | | Pollutant | Projected Actual Emissions (PAE) | Baseline Actual Emissions (BAE) | Emission Increases (PAE - BAE) | Emissions Which Could Have Been Accomodated (CHA) | Excludable Emissions (CHA - BAE) | Total Project Emission Increases (PAE - Excludable - BAE) |
|---|---|---|---|---|---|---|---|---|
| | | | tons/yr | | | | | |
| 101 | FCC Unit | PM | 84.62 | 43.06 | 41.56 | 93.30 | 50.24 | 0.00 |
| | | $PM_{10}$ | 110.60 | 63.93 | 46.66 | 140.78 | 76.84 | 0.00 |
| | | $PM_{2.5}$ | 96.21 | 41.79 | 54.43 | 112.69 | 70.91 | 0.00 |
| | | $SO_2$ | 88.82 | 28.86 | 59.96 | 95.25 | 66.39 | 0.00 |
| | | $NO_X$ | 432.52 | 233.46 | 199.06 | 454.41 | 220.95 | 0.00 |
| | | VOC | 3.20 | 3.15 | 0.05 | 3.26 | 0.11 | 0.00 |
| | | CO | 16.35 | 15.63 | 0.71 | 35.45 | 19.82 | 0.00 |
| | | Lead | - | 2.47E-04 | - | 4.18E-04 | 1.71E-04 | - |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | - | - | - | 0.00 | - | - |
| | | TRS | - | - | - | 0.00 | - | - |
| | | $CO_2$ | 754,773.34 | 499,375.51 | 255,397.83 | 560,274.64 | 60,899.13 | 194,498.70 |
| | | $N_2O$ | 4.42 | 2.93 | 1.50 | 3.28 | 0.36 | 1.14 |
| | | $CH_4$ | 22.11 | 14.67 | 7.44 | 16.46 | 1.79 | 5.65 |
| 733 | FCCU Feed Heater | PM | 0.18 | 0.10 | 0.08 | 0.38 | 0.28 | 0.00 |
| | | $PM_{10}$ | 0.72 | 0.42 | 0.30 | 1.52 | 1.10 | 0.00 |
| | | $PM_{2.5}$ | 0.72 | 0.58 | 0.13 | 1.52 | 0.94 | 0.00 |
| | | $SO_2$ | 0.78 | 0.62 | 0.16 | 1.66 | 1.04 | 0.00 |
| | | $NO_X$ | 3.02 | 2.56 | 0.46 | 6.67 | 4.11 | 0.00 |
| | | VOC | 0.52 | 0.42 | 0.10 | 1.10 | 0.68 | 0.00 |
| | | CO | 7.93 | 0.93 | 7.00 | 11.29 | 10.36 | 0.00 |
| | | Lead | 4.72E-05 | 3.73E-05 | 9.89E-06 | 9.99E-05 | 6.26E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 8.56E-03 | 0.01 | 0.00 | 0.02 | 8.85E-03 | 0.00 |
| | | TRS | 8.56E-03 | 0.01 | 0.00 | 0.02 | 0.01 | 0.00 |
| | | $CO_2$ | 13,103.51 | 16,695.75 | 0.00 | 34,001.33 | 17,305.58 | 0.00 |
| | | $N_2O$ | 0.13 | 0.17 | 0.00 | 0.35 | 0.18 | 0.00 |
| | | $CH_4$ | 0.67 | 0.85 | 0.00 | 1.73 | 0.88 | 0.00 |
| 735 | Kerosene/HCN HTU Feed Heater | PM | 0.06 | 0.22 | 0.00 | 0.47 | 0.25 | 0.00 |
| | | $PM_{10}$ | 0.25 | 0.36 | 0.00 | 0.50 | 0.15 | 0.00 |
| | | $PM_{2.5}$ | 0.25 | 0.30 | 0.00 | 0.48 | 0.18 | 0.00 |
| | | $SO_2$ | 0.28 | 0.33 | 0.00 | 0.53 | 0.20 | 0.00 |
| | | $NO_X$ | 4.51 | 5.36 | 0.00 | 8.84 | 3.48 | 0.00 |
| | | VOC | 0.18 | 0.22 | 0.00 | 0.35 | 0.13 | 0.00 |
| | | CO | 2.81 | 3.23 | 0.00 | 5.23 | 2.00 | 0.00 |
| | | Lead | 1.67E-05 | 1.82E-05 | 0.00 | 2.85E-05 | 1.03E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 3.09E-03 | 2.74E-03 | 3.54E-04 | 3.74E-03 | 1.00E-03 | 0.00 |
| | | TRS | 3.09E-03 | 2.77E-03 | 3.22E-04 | 4.36E-03 | 1.59E-03 | 0.00 |
| | | $CO_2$ | 4,728.66 | 4,319.92 | 408.74 | 6,671.34 | 2,351.42 | 0.00 |
| | | $N_2O$ | 0.05 | 0.04 | 4.16E-03 | 0.07 | 0.02 | 0.00 |
| | | $CH_4$ | 0.24 | 0.22 | 0.02 | 0.34 | 0.12 | 0.00 |
| 736 | Diesel HTU Heater | PM | 0.11 | 0.24 | 0.00 | 0.63 | 0.39 | 0.00 |
| | | $PM_{10}$ | 0.62 | 0.42 | 0.19 | 0.68 | 0.26 | 0.00 |
| | | $PM_{2.5}$ | 0.62 | 0.48 | 0.13 | 0.93 | 0.44 | 0.00 |
| | | $SO_2$ | 0.67 | 0.55 | 0.12 | 1.01 | 0.47 | 0.00 |
| | | $NO_X$ | 13.84 | 11.74 | 2.10 | 22.76 | 11.03 | 0.00 |
| | | VOC | 0.39 | 0.20 | 0.19 | 0.67 | 0.47 | 0.00 |
| | | CO | 0.18 | 3.49 | 0.00 | 10.87 | 7.38 | 0.00 |
| | | Lead | 4.05E-05 | 3.35E-05 | 6.98E-06 | 6.47E-05 | 3.12E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 7.45E-03 | 9.06E-03 | 0.00 | 0.01 | 2.93E-03 | 0.00 |
| | | TRS | 7.45E-03 | 9.24E-03 | 0.00 | 0.01 | 2.75E-03 | 0.00 |
| | | $CO_2$ | 11,394.36 | 13,802.45 | 0.00 | 18,354.99 | 4,552.54 | 0.00 |
| | | $N_2O$ | 0.12 | 0.14 | 0.00 | 0.19 | 0.05 | 0.00 |
| | | $CH_4$ | 0.58 | 0.70 | 0.00 | 0.93 | 0.23 | 0.00 |
| 741 | D2/VGO Hydrotreater Feed Heater | PM | 0.15 | 0.43 | 0.00 | 0.79 | 0.36 | 0.00 |
| | | $PM_{10}$ | 0.59 | 0.33 | 0.26 | 1.14 | 0.81 | 0.00 |
| | | $PM_{2.5}$ | 0.59 | 0.20 | 0.39 | 0.75 | 0.55 | 0.00 |
| | | $SO_2$ | 0.61 | 0.72 | 0.00 | 1.46 | 0.74 | 0.00 |
| | | $NO_X$ | 7.71 | 9.04 | 0.00 | 18.34 | 9.30 | 0.00 |
| | | VOC | 0.42 | 0.50 | 0.00 | 1.01 | 0.51 | 0.00 |
| | | CO | 6.48 | 7.44 | 0.00 | 15.41 | 7.97 | 0.00 |
| | | Lead | 3.86E-05 | 4.78E-05 | 0.00 | 9.17E-05 | 4.39E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 6.70E-03 | 0.01 | 0.00 | 0.02 | 4.27E-03 | 0.00 |
| | | TRS | 6.70E-03 | 0.01 | 0.00 | 0.02 | 7.79E-03 | 0.00 |
| | | $CO_2$ | 10,254.92 | 23,209.06 | 0.00 | 34,559.53 | 11,350.47 | 0.00 |
| | | $N_2O$ | 0.10 | 0.24 | 0.00 | 0.35 | 0.12 | 0.00 |
| | | $CH_4$ | 0.52 | 1.18 | 0.00 | 1.76 | 0.58 | 0.00 |

**Table C-33**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Project Emission Increases Summary**

| Source | | Pollutant | Projected Actual Emissions (PAE) | Baseline Actual Emissions (BAE) | Emission Increases (PAE - BAE) | Emissions Which Could Have Been Accomodated (CHA) | Excludable Emissions (CHA - BAE) | Total Project Emission Increases (PAE - Excludable - BAE) |
|---|---|---|---|---|---|---|---|---|
| | | | tons/yr | | | | | |
| 737 | Naphtha HDS Heater | PM | 0.61 | 1.19 | 0.00 | 2.37 | 1.18 | 0.00 |
| | | $PM_{10}$ | 2.43 | 1.87 | 0.56 | 2.37 | 0.50 | 0.06 |
| | | $PM_{2.5}$ | 2.43 | 1.92 | 0.51 | 2.37 | 0.45 | 0.06 |
| | | $SO_2$ | 2.55 | 2.01 | 0.54 | 2.49 | 0.48 | 0.06 |
| | | $NO_X$ | 33.29 | 25.95 | 7.34 | 37.04 | 11.09 | 0.00 |
| | | VOC | 1.76 | 1.39 | 0.37 | 1.72 | 0.33 | 0.04 |
| | | CO | 26.88 | 20.86 | 6.01 | 26.25 | 5.38 | 0.63 |
| | | Lead | 1.60E-04 | 1.22E-04 | 3.83E-05 | 1.56E-04 | 3.45E-05 | 3.75E-06 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.03 | 0.02 | 6.14E-03 | 0.03 | 6.98E-03 | 0.00 |
| | | TRS | 0.03 | 0.02 | 6.68E-03 | 0.03 | 7.52E-03 | 0.00 |
| | | $CO_2$ | 43,298.56 | 33,037.72 | 10,260.84 | 44,576.75 | 11,539.03 | 0.00 |
| | | $N_2O$ | 0.44 | 0.34 | 0.10 | 0.45 | 0.12 | 0.00 |
| | | $CH_4$ | 2.20 | 1.68 | 0.52 | 2.27 | 0.59 | 0.00 |
| 738 | Platformer Feed Heater | PM | 4.06 | 8.45 | 0.00 | 15.12 | 6.67 | 0.00 |
| | | $PM_{10}$ | 16.23 | 13.44 | 2.79 | 15.46 | 2.01 | 0.78 |
| | | $PM_{2.5}$ | 16.23 | 13.90 | 2.33 | 16.78 | 2.88 | 0.00 |
| | | $SO_2$ | 17.03 | 14.58 | 2.45 | 17.60 | 3.02 | 0.00 |
| | | $NO_X$ | 185.70 | 148.25 | 37.45 | 191.96 | 43.71 | 0.00 |
| | | VOC | 11.75 | 10.06 | 1.69 | 12.14 | 2.08 | 0.00 |
| | | CO | 0.15 | 1.57 | 0.00 | 7.11 | 5.54 | 0.00 |
| | | Lead | 1.07E-03 | 9.42E-04 | 1.26E-04 | 1.10E-03 | 1.61E-04 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.18 | 0.19 | 0.00 | 0.21 | 0.02 | 0.00 |
| | | TRS | 0.18 | 0.19 | 0.00 | 0.21 | 0.02 | 0.00 |
| | | $CO_2$ | 280,870.92 | 284,157.46 | 0.00 | 319,415.38 | 35,257.92 | 0.00 |
| | | $N_2O$ | 2.86 | 2.89 | 0.00 | 3.25 | 0.36 | 0.00 |
| | | $CH_4$ | 14.28 | 14.45 | 0.00 | 16.24 | 1.79 | 0.00 |
| 739 | Isocracker 1st Stage Heater | PM | 0.26 | 0.55 | 0.00 | 1.07 | 0.52 | 0.00 |
| | | $PM_{10}$ | 1.03 | 0.96 | 0.07 | 1.39 | 0.43 | 0.00 |
| | | $PM_{2.5}$ | 1.03 | 1.01 | 0.02 | 1.49 | 0.47 | 0.00 |
| | | $SO_2$ | 1.08 | 1.06 | 0.02 | 1.56 | 0.49 | 0.00 |
| | | $NO_X$ | 16.77 | 15.96 | 0.81 | 23.20 | 7.24 | 0.00 |
| | | VOC | 0.75 | 0.73 | 0.01 | 1.08 | 0.34 | 0.00 |
| | | CO | 11.43 | 11.21 | 0.22 | 16.45 | 5.24 | 0.00 |
| | | Lead | 6.80E-05 | 6.49E-05 | 3.08E-06 | 9.76E-05 | 3.27E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.01 | 9.24E-03 | 3.04E-03 | 0.02 | 5.95E-03 | 0.00 |
| | | TRS | 0.01 | 9.38E-03 | 2.90E-03 | 0.02 | 5.81E-03 | 0.00 |
| | | $CO_2$ | 18,800.69 | 14,711.55 | 4,089.14 | 23,249.17 | 8,537.61 | 0.00 |
| | | $N_2O$ | 0.19 | 0.15 | 0.04 | 0.24 | 0.09 | 0.00 |
| | | $CH_4$ | 0.96 | 0.75 | 0.21 | 1.18 | 0.43 | 0.00 |
| 740 | Isocracker Splitter Reboiler | PM | 0.34 | 0.69 | 0.00 | 1.50 | 0.81 | 0.00 |
| | | $PM_{10}$ | 1.37 | 1.19 | 0.18 | 1.50 | 0.31 | 0.00 |
| | | $PM_{2.5}$ | 1.37 | 1.21 | 0.16 | 1.59 | 0.38 | 0.00 |
| | | $SO_2$ | 1.44 | 1.27 | 0.17 | 1.67 | 0.40 | 0.00 |
| | | $NO_X$ | 18.05 | 15.94 | 2.11 | 20.92 | 4.98 | 0.00 |
| | | VOC | 0.99 | 0.88 | 0.12 | 1.15 | 0.27 | 0.00 |
| | | CO | 15.17 | 13.38 | 1.78 | 17.58 | 4.19 | 0.00 |
| | | Lead | 9.03E-05 | 7.83E-05 | 1.20E-05 | 1.05E-04 | 2.64E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.02 | 0.01 | 5.29E-03 | 0.02 | 4.02E-03 | 1.27E-03 |
| | | TRS | 0.02 | 0.01 | 4.70E-03 | 0.02 | 3.90E-03 | 8.04E-04 |
| | | $CO_2$ | 25,067.59 | 18,382.52 | 6,685.07 | 23,836.53 | 5,454.01 | 1,231.06 |
| | | $N_2O$ | 0.25 | 0.19 | 0.07 | 0.24 | 0.06 | 0.01 |
| | | $CH_4$ | 1.27 | 0.93 | 0.34 | 1.21 | 0.28 | 0.06 |
| 742 | VCD 541 VAC Heater | PM | 0.27 | 0.18 | 0.09 | 0.29 | 0.12 | 0.00 |
| | | $PM_{10}$ | 1.06 | 0.71 | 0.36 | 1.17 | 0.46 | 0.00 |
| | | $PM_{2.5}$ | 1.06 | 0.70 | 0.37 | 1.03 | 0.33 | 0.04 |
| | | $SO_2$ | 1.16 | 0.76 | 0.40 | 1.12 | 0.36 | 0.04 |
| | | $NO_X$ | 20.50 | 12.75 | 7.74 | 19.27 | 6.51 | 1.23 |
| | | VOC | 0.77 | 0.50 | 0.27 | 0.74 | 0.24 | 0.03 |
| | | CO | 11.76 | 7.34 | 4.41 | 11.34 | 4.00 | 0.41 |
| | | Lead | 7.00E-05 | 4.31E-05 | 2.69E-05 | 6.75E-05 | 2.45E-05 | 2.46E-06 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.01 | 9.43E-03 | 3.97E-03 | 0.01 | 2.88E-03 | 1.10E-03 |
| | | TRS | 0.01 | 9.09E-03 | 4.31E-03 | 0.01 | 2.57E-03 | 1.74E-03 |
| | | $CO_2$ | 20,509.84 | 13,793.59 | 6,716.25 | 17,844.39 | 4,050.79 | 2,665.46 |
| | | $N_2O$ | 0.21 | 0.14 | 0.07 | 0.18 | 0.04 | 0.03 |
| | | $CH_4$ | 1.04 | 0.70 | 0.34 | 0.91 | 0.21 | 0.14 |

**Table C-33**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Project Emission Increases Summary**

| Source | | Pollutant | Projected Actual Emissions (PAE) | Baseline Actual Emissions (BAE) | Emission Increases (PAE - BAE) | Emissions Which Could Have Been Accomodated (CHA) | Excludable Emissions (CHA - BAE) | Total Project Emission Increases (PAE - Excludable - BAE) |
|---|---|---|---|---|---|---|---|---|
| | | | tons/yr | | | | | |
| 743 | VCD 542 VAC Heater | PM | 0.15 | 0.44 | 0.00 | 1.32 | 0.88 | 0.00 |
| | | $PM_{10}$ | 0.62 | 0.78 | 0.00 | 1.32 | 0.53 | 0.00 |
| | | $PM_{2.5}$ | 0.62 | 0.70 | 0.00 | 1.32 | 0.61 | 0.00 |
| | | $SO_2$ | 0.67 | 0.41 | 0.27 | 0.76 | 0.36 | 0.00 |
| | | $NO_X$ | 6.75 | 4.02 | 2.73 | 7.52 | 3.51 | 0.00 |
| | | VOC | 0.03 | 0.02 | 0.01 | 0.03 | 0.01 | 0.00 |
| | | CO | 0.02 | 0.01 | 8.67E-03 | 0.02 | 0.01 | 0.00 |
| | | Lead | 4.06E-05 | 2.38E-05 | 1.68E-05 | 4.60E-05 | 2.22E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 7.45E-03 | 0.01 | 0.00 | 0.01 | 2.44E-03 | 0.00 |
| | | TRS | 7.45E-03 | 0.01 | 0.00 | 0.01 | 1.78E-03 | 0.00 |
| | | $CO_2$ | 11,394.36 | 17,771.31 | 0.00 | 20,631.05 | 2,859.74 | 0.00 |
| | | $N_2O$ | 0.12 | 0.18 | 0.00 | 0.21 | 0.03 | 0.00 |
| | | $CH_4$ | 0.58 | 0.90 | 0.00 | 1.05 | 0.15 | 0.00 |
| 746 | VCD 544 VAC Heater | PM | 0.55 | 1.35 | 0.00 | 3.20 | 1.85 | 0.00 |
| | | $PM_{10}$ | 2.19 | 2.88 | 0.00 | 3.36 | 0.48 | 0.00 |
| | | $PM_{2.5}$ | 2.19 | 2.77 | 0.00 | 3.36 | 0.59 | 0.00 |
| | | $SO_2$ | 2.39 | 2.34 | 0.05 | 2.88 | 0.55 | 0.00 |
| | | $NO_X$ | 12.44 | 12.49 | 0.00 | 15.71 | 3.21 | 0.00 |
| | | VOC | 2.18 | 2.11 | 0.07 | 2.56 | 0.45 | 0.00 |
| | | CO | 5.29 | 1.34 | 3.95 | 5.41 | 4.07 | 0.00 |
| | | Lead | 1.44E-04 | 1.40E-04 | 4.35E-06 | 1.74E-04 | 3.41E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.03 | 0.02 | 2.82E-03 | 0.03 | 6.33E-03 | 0.00 |
| | | TRS | 0.03 | 0.02 | 3.19E-03 | 0.03 | 6.71E-03 | 0.00 |
| | | $CO_2$ | 40,449.97 | 35,464.65 | 4,985.32 | 45,828.20 | 10,363.55 | 0.00 |
| | | $N_2O$ | 0.41 | 0.36 | 0.05 | 0.47 | 0.11 | 0.00 |
| | | $CH_4$ | 2.06 | 1.80 | 0.25 | 2.33 | 0.53 | 0.00 |
| 744 | ACD 543 Crude Heater | PM | 2.01 | 4.32 | 0.00 | 8.66 | 4.35 | 0.00 |
| | | $PM_{10}$ | 8.02 | 7.22 | 0.80 | 8.76 | 1.54 | 0.00 |
| | | $PM_{2.5}$ | 8.02 | 7.36 | 0.66 | 8.76 | 1.40 | 0.00 |
| | | $SO_2$ | 8.77 | 8.04 | 0.72 | 9.57 | 1.53 | 0.00 |
| | | $NO_X$ | 45.55 | 39.50 | 6.05 | 49.71 | 10.20 | 0.00 |
| | | VOC | 5.81 | 5.33 | 0.48 | 6.34 | 1.01 | 0.00 |
| | | CO | 88.66 | 81.32 | 7.34 | 96.84 | 15.52 | 0.00 |
| | | Lead | 5.28E-04 | 4.82E-04 | 4.59E-05 | 5.76E-04 | 9.45E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.10 | 0.09 | 3.83E-03 | 0.11 | 0.01 | 0.00 |
| | | TRS | 0.10 | 0.09 | 3.21E-03 | 0.11 | 0.01 | 0.00 |
| | | $CO_2$ | 148,126.65 | 143,860.54 | 4,266.12 | 166,202.49 | 22,341.96 | 0.00 |
| | | $N_2O$ | 1.51 | 1.46 | 0.04 | 1.69 | 0.23 | 0.00 |
| | | $CH_4$ | 7.53 | 7.31 | 0.22 | 8.45 | 1.14 | 0.00 |
| 745 | ACD 544 Crude Heater | PM | 2.00 | 4.68 | 0.00 | 9.23 | 4.55 | 0.00 |
| | | $PM_{10}$ | 8.01 | 7.59 | 0.43 | 9.23 | 1.64 | 0.00 |
| | | $PM_{2.5}$ | 8.01 | 7.60 | 0.41 | 9.23 | 1.63 | 0.00 |
| | | $SO_2$ | 8.75 | 8.30 | 0.45 | 10.08 | 1.78 | 0.00 |
| | | $NO_X$ | 50.11 | 44.94 | 5.16 | 56.20 | 11.25 | 0.00 |
| | | VOC | 5.80 | 5.50 | 0.30 | 6.68 | 1.18 | 0.00 |
| | | CO | 88.55 | 83.63 | 4.93 | 102.01 | 18.38 | 0.00 |
| | | Lead | 5.27E-04 | 4.91E-04 | 3.59E-05 | 6.07E-04 | 1.16E-04 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.10 | 0.09 | 3.40E-03 | 0.10 | 9.51E-03 | 0.00 |
| | | TRS | 0.10 | 0.09 | 1.93E-03 | 0.10 | 8.04E-03 | 0.00 |
| | | $CO_2$ | 148,126.65 | 145,398.35 | 2,728.31 | 157,482.30 | 12,083.95 | 0.00 |
| | | $N_2O$ | 1.51 | 1.48 | 0.03 | 1.60 | 0.12 | 0.00 |
| | | $CH_4$ | 7.53 | 7.39 | 0.14 | 8.01 | 0.61 | 0.00 |
| 34 | Boiler 9 | PM | 0.72 | 0.53 | 0.20 | 0.89 | 0.36 | 0.00 |
| | | $PM_{10}$ | 5.69 | 1.69 | 4.01 | 5.62 | 3.93 | 0.07 |
| | | $PM_{2.5}$ | 5.07 | 0.55 | 4.52 | 5.29 | 4.74 | 0.00 |
| | | $SO_2$ | 1.04 | 1.66 | 0.00 | 2.03 | 0.37 | 0.00 |
| | | $NO_X$ | 4.41 | 4.16 | 0.24 | 4.94 | 0.77 | 0.00 |
| | | VOC | 0.31 | 0.04 | 0.27 | 0.35 | 0.32 | 0.00 |
| | | CO | 1.34 | 1.17 | 0.17 | 1.41 | 0.25 | 0.00 |
| | | Lead | 4.80E-04 | 4.51E-04 | 2.91E-05 | 5.60E-04 | 1.09E-04 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.09 | 0.06 | 0.03 | 0.09 | 0.03 | 1.70E-03 |
| | | TRS | 0.09 | 0.06 | 0.03 | 0.09 | 0.03 | 1.70E-03 |
| | | $CO_2$ | 115,228.12 | 72,880.82 | 42,347.30 | 109,168.22 | 36,287.41 | 6,059.89 |
| | | $N_2O$ | 2.11 | 0.14 | 1.98 | 0.21 | 0.07 | 1.91 |
| | | $CH_4$ | 2.21 | 1.37 | 0.83 | 2.06 | 0.68 | 0.15 |

**Table C-33**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Project Emission Increases Summary**

| Source | | Pollutant | Projected Actual Emissions (PAE) | Baseline Actual Emissions (BAE) | Emission Increases (PAE - BAE) | Emissions Which Could Have Been Accomodated (CHA) | Excludable Emissions (CHA - BAE) | Total Project Emission Increases (PAE - Excludable - BAE) |
|---|---|---|---|---|---|---|---|---|
| | | | tons/yr | | | | | |
| 35 | Boiler 10 | PM | 0.40 | 0.38 | 0.02 | 0.58 | 0.20 | 0.00 |
| | | $PM_{10}$ | 3.07 | 1.06 | 2.01 | 3.14 | 2.08 | 0.00 |
| | | $PM_{2.5}$ | 2.97 | 0.46 | 2.52 | 3.07 | 2.61 | 0.00 |
| | | $SO_2$ | 2.97 | 1.58 | 1.40 | 2.07 | 0.49 | 0.91 |
| | | $NO_X$ | 3.93 | 3.90 | 0.03 | 5.09 | 1.19 | 0.00 |
| | | VOC | 0.27 | 0.03 | 0.24 | 0.31 | 0.28 | 0.00 |
| | | CO | 4.93 | 8.72 | 0.00 | 16.67 | 7.94 | 0.00 |
| | | Lead | 4.60E-04 | 4.32E-04 | 2.76E-05 | 5.45E-04 | 1.13E-04 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.08 | 0.06 | 0.02 | 0.09 | 0.03 | 0.00 |
| | | TRS | 0.08 | 0.06 | 0.02 | 0.09 | 0.02 | 0.00 |
| | | $CO_2$ | 110,341.81 | 83,481.92 | 26,859.89 | 113,628.58 | 30,146.66 | 0.00 |
| | | $N_2O$ | 2.02 | 0.16 | 1.87 | 0.21 | 0.06 | 1.81 |
| | | $CH_4$ | 2.11 | 1.57 | 0.54 | 2.14 | 0.57 | 0.00 |
| 102 | SRU | PM | 0.11 | 0.10 | 0.01 | 0.14 | 0.05 | 0.00 |
| | | $PM_{10}$ | 0.44 | 0.38 | 0.07 | 0.58 | 0.20 | 0.00 |
| | | $PM_{2.5}$ | 0.44 | 0.32 | 0.13 | 0.51 | 0.19 | 0.00 |
| | | $SO_2$ | 40.33 | 18.24 | 22.09 | 27.98 | 9.73 | 12.36 |
| | | $NO_X$ | 5.83 | 4.33 | 1.50 | 6.81 | 2.48 | 0.00 |
| | | VOC | 0.32 | 0.23 | 0.09 | 0.37 | 0.14 | 0.00 |
| | | CO | 4.90 | 3.56 | 1.34 | 5.62 | 2.05 | 0.00 |
| | | Lead | 2.92E-05 | 2.04E-05 | 8.78E-06 | 3.34E-05 | 1.30E-05 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | TRS | - | - | - | 0.00 | - | - |
| | | $CO_2$ | 29,513.46 | 2,852.70 | 26,660.76 | 3,542.78 | 690.08 | 25,970.68 |
| | | $N_2O$ | 0.30 | 0.06 | 0.24 | 0.07 | 0.01 | 0.22 |
| | | $CH_4$ | 89.09 | 5.88E-03 | 89.08 | 7.31E-03 | 1.42E-03 | 89.08 |
| 103 | Main Flare | PM | 1.25 | 4.05 | 0.00 | 6.83 | 2.78 | 0.00 |
| | | $PM_{10}$ | 1.74 | 5.04 | 0.00 | 8.11 | 3.07 | 0.00 |
| | | $PM_{2.5}$ | 1.74 | 5.04 | 0.00 | 9.33 | 4.29 | 0.00 |
| | | $SO_2$ | 4.15 | 11.13 | 0.00 | 25.00 | 13.87 | 0.00 |
| | | $NO_X$ | 3.15 | 9.99 | 0.00 | 18.23 | 8.24 | 0.00 |
| | | VOC | 6.48 | 20.56 | 0.00 | 37.52 | 16.96 | 0.00 |
| | | CO | 17.13 | 58.11 | 0.00 | 158.82 | 100.71 | 0.00 |
| | | Lead | 2.14E-04 | 1.14E-04 | 9.96E-05 | 4.09E-04 | 2.95E-04 | 0.00 |
| | | Fluorides | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2SO_4$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | $H_2S$ | 2.47 | 14.23 | 0.00 | 18.26 | 4.03 | 0.00 |
| | | TRS | - | - | - | 0.00 | - | - |
| | | $CO_2$ | 5,902.69 | 51,382.53 | 0.00 | 72,299.13 | 20,916.60 | 0.00 |
| | | $N_2O$ | 0.06 | 0.96 | 0.00 | 1.30 | 0.34 | 0.00 |
| | | $CH_4$ | 17.82 | 8.75 | 9.07 | 13.62 | 4.87 | 4.19 |
| 165 | Tank 93 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 1.92 | 4.59 | 0.00 | 2.03 | -2.56E+00 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 166 | Tank 94 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 2.76 | 1.96 | 0.81 | 2.91 | 0.96 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |

**Table C-33**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Project Emission Increases Summary**

| Source | | Pollutant | Projected Actual Emissions (PAE) | Baseline Actual Emissions (BAE) | Emission Increases (PAE - BAE) | Emissions Which Could Have Been Accomodated (CHA) | Excludable Emissions (CHA - BAE) | Total Project Emission Increases (PAE - Excludable - BAE) |
|---|---|---|---|---|---|---|---|---|
| | | | tons/yr | | | | | |
| 126 | Tank 95 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 3.46 | 2.44 | 1.02 | 3.56 | 1.13 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 127 | Tank 96 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 4.45 | 3.37 | 1.09 | 4.61 | 1.25 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 137 | Tank 152 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 5.06 | 2.34 | 2.71 | 8.64 | 6.30 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 138 | Tank 153 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 0.19 | 0.16 | 0.03 | 0.20 | 0.04 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 140 | Tank 155 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 0.18 | 0.13 | 0.05 | 0.18 | 0.06 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |

**Table C-33**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Project Emission Increases Summary**

| Source | | Pollutant | Projected Actual Emissions (PAE) | Baseline Actual Emissions (BAE) | Emission Increases (PAE - BAE) | Emissions Which Could Have Been Accomodated (CHA) | Excludable Emissions (CHA - BAE) | Total Project Emission Increases (PAE - Excludable - BAE) |
|---|---|---|---|---|---|---|---|---|
| | | | tons/yr | | | | | |
| 142 | Tank 157 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 0.21 | 0.15 | 0.06 | 0.24 | 0.09 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 300 | Tank 158 (Source ID 193) | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 13.15 | 1.06 | 12.09 | 17.18 | 16.12 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 143 | Tank 159 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 3.97 | 4.08 | 0.00 | 4.06 | -2.30E-02 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 194 | Tank 160 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 0.22 | 4.69 | 0.00 | 0.26 | -4.43E+00 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 144 | Tank 161 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 6.04 | 2.68 | 3.36 | 6.21 | 3.53 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |

**Table C-33**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Project Emission Increases Summary**

| Source | | Pollutant | Projected Actual Emissions (PAE) | Baseline Actual Emissions (BAE) | Emission Increases (PAE - BAE) | Emissions Which Could Have Been Accomodated (CHA) | Excludable Emissions (CHA - BAE) | Total Project Emission Increases (PAE - Excludable - BAE) |
|---|---|---|---|---|---|---|---|---|
| | | | tons/yr | | | | | |
| 145 | Tank 162 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 3.25 | 0.64 | 2.61 | 6.36 | 5.71 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 146 | Tank 163 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 4.25 | 1.82 | 2.43 | 4.41 | 2.58 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 147 | Tank 164 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 3.79 | 1.88 | 1.91 | 7.79 | 5.91 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 148 | Tank 165 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 8.26 | 2.23 | 6.03 | 20.33 | 18.10 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 149 | Tank 166 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 3.55 | 2.89 | 0.66 | 4.06 | 1.17 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |

**Table C-33**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Project Emission Increases Summary**

| Source | | Pollutant | Projected Actual Emissions (PAE) | Baseline Actual Emissions (BAE) | Emission Increases (PAE - BAE) | Emissions Which Could Have Been Accomodated (CHA) | Excludable Emissions (CHA - BAE) | Total Project Emission Increases (PAE - Excludable - BAE) |
|---|---|---|---|---|---|---|---|---|
| | | | tons/yr | | | | | |
| 150 | Tank 168 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 2.89 | 1.69 | 1.20 | 3.42 | 1.73 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 152 | Tank 170 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 6.13 | 4.21 | 1.92 | 6.24 | 2.03 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 155 | Tank 174 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 12.01 | 3.99 | 8.02 | 13.79 | 9.80 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 156 | Tank 175 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 7.43 | 6.36 | 1.06 | 7.94 | 1.58 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 157 | Tank 178 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 3.23 | 3.53 | 0.00 | 5.85 | 2.32 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |

**Table C-33**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Project Emission Increases Summary**

| Source | | Pollutant | Projected Actual Emissions (PAE) | Baseline Actual Emissions (BAE) | Emission Increases (PAE - BAE) | Emissions Which Could Have Been Accomodated (CHA) | Excludable Emissions (CHA - BAE) | Total Project Emission Increases (PAE - Excludable - BAE) |
|---|---|---|---|---|---|---|---|---|
| | | | tons/yr | | | | | |
| 160 | Tank 181 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 8.75 | 2.24 | 6.51 | 22.24 | 20.00 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 161 | Tank 182 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 20.53 | 4.38 | 16.15 | 39.43 | 35.05 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 163 | Tank 185 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 11.26 | 8.82 | 2.44 | 11.81 | 2.99 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |
| 164 | Tank 186 | PM | - | - | - | - | - | - |
| | | $PM_{10}$ | - | - | - | - | - | - |
| | | $PM_{2.5}$ | - | - | - | - | - | - |
| | | $SO_2$ | - | - | - | - | - | - |
| | | $NO_X$ | - | - | - | - | - | - |
| | | VOC | 5.47 | 5.54 | 0.00 | 6.60 | 1.05 | 0.00 |
| | | CO | - | - | - | - | - | - |
| | | Lead | - | - | - | - | - | - |
| | | Fluorides | - | - | - | - | - | - |
| | | $H_2SO_4$ | - | - | - | - | - | - |
| | | $H_2S$ | - | - | - | - | - | - |
| | | TRS | - | - | - | - | - | - |
| | | $CO_2$ | - | - | - | - | - | - |
| | | $N_2O$ | - | - | - | - | - | - |
| | | $CH_4$ | - | - | - | - | - | - |

**Table C-34**
**Monroe Energy, LLC - Trainer, PA Refinery**
**PSD Applicability Assessment Summary**

| Emission Unit | | Project Related Emissions Increase (tpy) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | $PM_{10}$ | $PM_{2.5}$ | $SO_2$ | $NO_X$ | VOC | CO | Lead | $H_2S$ | TRS | $CO_2e$[a],[b] |
| 101 | FCC Unit | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | - | - | 194,979.46 |
| 733 | FCCU Feed Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 735 | Kerosene/HCN HTU Feed Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 736 | Diesel HTU Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 741 | D2/VGO Hydrotreater Feed Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 737 | Naphtha HDS Heater | 0.00 | 0.06 | 0.06 | 0.06 | 0.00 | 0.04 | 0.63 | 3.75E-06 | 0.00 | 0.00 | 0.00 |
| 738 | Platformer Feed Heater | 0.00 | 0.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 739 | Isocracker 1st Stage Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 740 | Isocracker Splitter Reboiler | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.27E-03 | 8.04E-04 | 1,236.35 |
| 742 | VCD 541 VAC Heater | 0.00 | 0.00 | 0.04 | 0.04 | 1.23 | 0.03 | 0.41 | 2.46E-06 | 1.10E-03 | 1.74E-03 | 2,676.92 |
| 743 | VCD 542 VAC Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 746 | VCD 544 VAC Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 744 | ACD 543 Crude Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 745 | ACD 544 Crude Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 34 | Boiler 9 | 0.00 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.70E-03 | 1.70E-03 | 6,631.89 |
| 35 | Boiler 10 | 0.00 | 0.00 | 0.00 | 0.91 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 539.02 |
| 102 | SRU | 0.00 | 0.00 | 0.00 | 12.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | 28,263.81 |
| 103 | Main Flare | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | 104.87 |
| 165 | Tank 93 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 166 | Tank 94 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 126 | Tank 95 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 127 | Tank 96 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 137 | Tank 152 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 138 | Tank 153 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 140 | Tank 155 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 142 | Tank 157 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 300 | Tank 158 (Source ID 193) | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 143 | Tank 159 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 194 | Tank 160 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 144 | Tank 161 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 145 | Tank 162 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 146 | Tank 163 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 147 | Tank 164 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 148 | Tank 165 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 149 | Tank 166 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 150 | Tank 168 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 152 | Tank 170 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 155 | Tank 174 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 156 | Tank 175 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 157 | Tank 178 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 160 | Tank 181 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 161 | Tank 182 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 163 | Tank 185 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| 164 | Tank 186 | - | - | - | - | - | 0.00 | - | - | - | - | - |
| N/A | New Feed Heaters | 3.15 | 3.15 | 3.15 | 4.42 | 22.04 | 3.15 | 17.08 | 2.66E-04 | - | - | 81,935.43 |
| N/A | New Cooling Tower | 0.16 | 0.16 | 0.16 | - | - | 6.02 | - | - | - | - | - |
| N/A | Additional Fugitive Emissions | - | - | - | - | - | 5.13 | - | - | - | - | - |
| ***Total Project Emissions Increases*** | | ***3.31*** | ***4.21*** | ***3.40*** | ***17.79*** | ***23.28*** | ***14.37*** | ***18.12*** | ***2.73E-04*** | ***4.06E-03*** | ***4.25E-03*** | ***316,367.75*** |
| ***PSD Significance Threshold*** | | **25** | **15** | **10** | **40** | **40** | **40** | **100** | **0.6** | **10** | **10** | **75,000** |
| ***PSD Significant?*** | | *No* | *No* | *No* | *No* | *No* | *No* | *No* | *No* | *No* | *No* | *No* |

[a] $CO_2e$ is carbon dioxide equivalent, calculated according to 40 CFR 98 Equation A-1:

$$CO_2e = \sum_{i=1}^{n} GHG_i \times GWP_i$$

where GHGi = annual mass emissions of greenhouse gas i (short tons/year)
GWPi = global warming potential of greenhouse gas i from the table below

| Pollutant | GWP (100 year) |
|---|---|
| $CO_2$ | 1 |
| $N_2O$ | 298 |
| $CH_4$ | 25 |

[b] A June 23, 2014 decision by the U.S. Supreme Court, in *Utility Air Regulatory Group v. EPA*, rules that PSD for greenhouse gas (GHG) emissions need only be considered when permitting already triggers PSD permitting for one of the convention PSD pollutants.

**Table C-35**
**Monroe Energy, LLC - Trainer, PA Refinery**
**NNSR Applicability Assessment Summary**

| Emission Unit | | Project Related Emissions Increase (tpy) | | | | |
|---|---|---|---|---|---|---|
| | | $PM_{2.5}$ NNSR | | | Ozone NNSR | |
| | | $PM_{2.5}$ | $SO_2$ | $NO_X$ | $NO_X$ | VOC |
| 101 | FCC Unit | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 733 | FCCU Feed Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 735 | Kerosene/HCN HTU Feed Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 736 | Diesel HTU Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 741 | D2/VGO Hydrotreater Feed Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 737 | Naphtha HDS Heater | 0.06 | 0.06 | 0.00 | 0.00 | 0.04 |
| 738 | Platformer Feed Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 739 | Isocracker 1st Stage Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 740 | Isocracker Splitter Reboiler | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 742 | VCD 541 VAC Heater | 0.04 | 0.04 | 1.23 | 1.23 | 0.03 |
| 743 | VCD 542 VAC Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 746 | VCD 544 VAC Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 744 | ACD 543 Crude Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 745 | ACD 544 Crude Heater | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 34 | Boiler 9 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 35 | Boiler 10 | 0.00 | 0.91 | 0.00 | 0.00 | 0.00 |
| 102 | SRU | 0.00 | 12.36 | 0.00 | 0.00 | 0.00 |
| 103 | Main Flare | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 165 | Tank 93 | - | - | - | - | 0.00 |
| 166 | Tank 94 | - | - | - | - | 0.00 |
| 126 | Tank 95 | - | - | - | - | 0.00 |
| 127 | Tank 96 | - | - | - | - | 0.00 |
| 137 | Tank 152 | - | - | - | - | 0.00 |
| 138 | Tank 153 | - | - | - | - | 0.00 |
| 140 | Tank 155 | - | - | - | - | 0.00 |
| 142 | Tank 157 | - | - | - | - | 0.00 |
| 300 | Tank 158 (Source ID 193) | - | - | - | - | 0.00 |
| 143 | Tank 159 | - | - | - | - | 0.00 |
| 194 | Tank 160 | - | - | - | - | 0.00 |
| 144 | Tank 161 | - | - | - | - | 0.00 |
| 145 | Tank 162 | - | - | - | - | 0.00 |
| 146 | Tank 163 | - | - | - | - | 0.00 |
| 147 | Tank 164 | - | - | - | - | 0.00 |
| 148 | Tank 165 | - | - | - | - | 0.00 |
| 149 | Tank 166 | - | - | - | - | 0.00 |
| 150 | Tank 168 | - | - | - | - | 0.00 |
| 152 | Tank 170 | - | - | - | - | 0.00 |
| 155 | Tank 174 | - | - | - | - | 0.00 |
| 156 | Tank 175 | - | - | - | - | 0.00 |
| 157 | Tank 178 | - | - | - | - | 0.00 |
| 160 | Tank 181 | - | - | - | - | 0.00 |
| 161 | Tank 182 | - | - | - | - | 0.00 |
| 163 | Tank 185 | - | - | - | - | 0.00 |
| 164 | Tank 186 | - | - | - | - | 0.00 |
| N/A | New Feed Heaters | 3.15 | 4.42 | 22.04 | 22.04 | 3.15 |
| N/A | New Cooling Tower | 0.16 | - | - | - | 6.02 |
| N/A | Additional Fugitive Emissions | - | - | - | - | 5.13 |
| ***Total Project Emissions Increases*** | | ***3.40*** | ***17.79*** | ***23.28*** | ***23.28*** | ***14.37*** |
| ***NNSR Significance Threshold*** | | ***10*** | ***40*** | ***40*** | ***25*** | ***25*** |
| ***NNSR Significant?*** | | ***No*** | ***No*** | ***No*** | ***No*** | ***No*** |

**Table C-36**
**Monroe Energy, LLC - Trainer, PA Refinery**
**Contemporaneous Emission Increases/Decreases**

| Date[a] | Plan Approval/ RFD | Description | Note | Emission Increase/Decrease | |
|---|---|---|---|---|---|
| | | | | $NO_X$ | VOC |
| | | | | (tpy) | |
| 10/03/2006 | 23-0003I | Two New Boilers | | 23.70 | 2.60 |
| 05/04/2007 | 23-0003J | Clean Fuel Project | (b) | 39.00 | 0.00 |
| 10/19/2007 | 23-0003K | Modification to PA 23-0003G | | 21.89 | 0.00 |
| 10/23/2008 | 23-0003M | Cooling Tower | | 0.00 | 0.74 |
| 12/08/2008 | 23-0003N | FCCU Feed Heater Modification | | 0.00 | (1.10) |
| 02/09/2009 | 23-0003O | ReVAP | (c) | | |
| 04/10/2009 | 23-0003P | 2010 Turnaround | | 1.59 | 0.26 |
| 09/28/2009 | 23-0003Q | Boiler MACT Phase II Application | | 0.00 | 0.00 |
| 12/04/2009 | RFD | Light Components Loading | | 0.07 | 0.14 |
| 12/23/2009 | 23-0003R | Aromatic Saturation Unit Project | (c) | | |
| 10/01/2010 | 23-0003S | Flare Gas Recovery Project | | 0.00 | 3.58 |
| 10/01/2010 | 23-0003T | Amended Alky ReVAP Project | (c) | | |
| 11/09/2011 | 23-0003U | Two New Boilers (Replace Boiler 8)(withdrawn) | | | |
| 04/12/2012 | 23-0003V | Diesel Heater Project | (c) | | |
| 08/09/2012 | RFD | Main Flare - Turnaround | | 0.00 | 0.09 |
| 01/10/2013 | RFD #3418 | Propane Loading into Trucks | | 0.00 | 0.00 |
| 04/04/2013 | RFD #3561 | Peabody Heater Modifications | | 0.00 | 0.00 |
| 04/23/2013 | RFD #3596 | Max Jet | | 0.00 | 0.21 |
| 05/17/2013 | 23-0003W | D2 Project | (d) | 0.00 | 3.44 |
| 03/13/2014 | 23-0003X | 400 kW Emergency Generator | (e) | 1.19 | 0.01 |
| 10/14/2014 | 23-0003Y | Proposed Boiler 13 (Replace Boiler 8) | | 11.70 | 1.98 |
| Total Contemporaneous Emission Increases with Proposed Boiler 13 | | | | 117.14 | 0.00 |
| Total Contemporaneous Emission Reduction Credits Required | | | (f) | 152.28 | 0.00 |
| Total Emission Reduction Credits Previously Provided with PA 23-0003X | | | (g) | (146.20) | N/A |
| Net Emission Reduction Credits Required/Provided with PA 23-0003Y | | | (h) | 6.08 | 0.00 |
| TBD | 23-0003Z | Proposed Cooling Tower Project | (i) | 1.44 | 67.38 |
| TBD | TBD | Proposed Flare PAA | | 1.60 | 0.09 |
| TBD | TBD | Proposed ULSG PAA | | 23.28 | 14.37 |
| | | | ***5-year Aggregation*** | ***26.32*** | ***14.45*** |
| | | | ***10-year Aggregation*** | ***26.32*** | ***14.45*** |
| | | | ***Significance Level*** | ***25*** | ***25*** |
| | | | ***Total Emission Reduction Credits Required [j]*** | ***34*** | ***N/A*** |

Notes:

[a] Based on net emission increases occurring over a 10-year period.

[b] This application modified an existing Plan Approval No. 23-0003E.

[c] Application/Plan Approval was withdrawn.

[d] Project triggered NNSR for VOC, 40 tons of VOC ERCs were purchased, cumulative contemporaneous emissions increase reset back to zero.

[e] Project triggered NNSR for $NO_X$, 147.6 tons of $NO_X$ ERCs were purchased, cumulative contemporaneous emissions increase reset back to zero with an additional 1.4 tons available for future use.

[f] At an offset ratio of 1.3:1 per 25 Pa. Code § 127.210.

[g] Application/Plan Approval 23-0003U was withdrawn and desired back-up capacity now being replaced with proposed Boiler 13. Aggregate $NO_X$ ERCs required is reduced accordingly for those already provided under PA 23-0003X, per conversations with Virendra Trivedi (PADEP) on July 10, 2014.

[h] Project triggered NNSR for $NO_X$, 6.08 tons of $NO_X$ ERCs were purchased, cumulative contemporaneous emission increase reset back to zero.

[i] Project triggered NNSR for VOC, 69.39 tons of VOC ERCs were purchased, cumulative contemporaneous emission increase reset back to zero.