|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Unit num | Unit Name | Fuel/Chemical | Quantity Used | Unit of Mea | Pollutant | Emission Factor | Unit of Mea2 | Pounds of Pollutant Emitted | Tons of Pollutant Emitted | Warming Potential | Metric Tons of CO2e Emitted | Short Tons of CO2e Emitted |
| 4 | Founders Boiler #4 | Natural Gas | 4,201,137 | cubic feet | CO2 | 120,000 | lbs CO2/106 cubic feet | 504,136 | 252.0682 | 1 | 228.67 | 252.0682 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 10 | 0.0048 | 25 | 0.11 | 0.1192 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 1 | 0.0005 | 298 | 0.13 | 0.1380 |
| 7 | Generator #1 Daniels Hall | Natural Gas | 36,201 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 4,345 | 2.1724 | 1 | 1.97 | 2.1724 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 0 | 0.0000 | 25 | 0.00 | 0.0010 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 0 | 0.0000 | 298 | 0.00 | 0.0012 |
| 8 | Generator #2 Founders Hall | Natural Gas | 46,806 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 5,618 | 2.8088 | 1 | 2.55 | 2.8088 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 0 | 0.0001 | 25 | 0.00 | 0.0013 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 0 | 0.0000 | 298 | 0.00 | 0.0015 |
| 9 | Generator #3 Harrington | Natural Gas | 0 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 0 | 0.0000 | 1 | 0.00 | 0.0000 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 0 | 0.0000 | 25 | 0.00 | 0.0000 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 0 | 0.0000 | 298 | 0.00 | 0.0000 |
| 10 | Generator #4 Salisbury | Natural Gas | 41,044 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 4,926 | 2.4630 | 1 | 2.23 | 2.4630 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 0 | 0.0000 | 25 | 0.00 | 0.0012 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 0 | 0.0000 | 298 | 0.00 | 0.0013 |
| 12 | Generator #5 Fuller #1 Roof | Diesel | 69 | gallons | CO2 | 22,600 | lbs CO2/1000 gallons | 1,559 | 0.7797 | 1 | 0.71 | 0.7797 |
|  |  |  |  |  | CH4 | 0.0066 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0000 |
|  |  |  |  |  | N2O | 0.0013 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0000 |
| 13 | Generator #6 Fuller #2 Ground | Diesel | 288 | gallons | CO2 | 22,600 | lbs CO2/1000 gallons | 6,509 | 3.2544 | 1 | 2.95 | 3.2544 |
|  |  |  |  |  | CH4 | 0.0066 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0000 |
|  |  |  |  |  | N2O | 0.0013 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0001 |
| 28 | Generator #7 Gateway | Diesel | 1,509 | gallons | CO2 | 22,600 | lbs CO2/1000 gallons | 34,099 | 17.0494 | 1 | 15.47 | 17.0494 |
|  |  |  |  |  | CH4 | 0.0066 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0001 |
|  |  |  |  |  | N2O | 0.0013 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0003 |
| 31 | Generator #8 Gateway Garage | Diesel | 107 | gallons | CO2 | 22,600 | lbs CO2/1000 gallons | 2,418 | 1.2091 | 1 | 1.10 | 1.2091 |
|  |  |  |  |  | CH4 | 0.0066 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0000 |
|  |  |  |  |  | N2O | 0.0013 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0000 |
| 14 | Generator #9 Power Plant | Diesel | 1,152 | gallons | CO2 | 22,600 | lbs CO2/1000 gallons | 26,035 | 13.0176 | 1 | 11.81 | 13.0176 |
|  |  |  |  |  | CH4 | 0.0066 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0001 |
|  |  |  |  |  | N2O | 0.0013 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0002 |
| 29 | Generator #10 East Hall | Diesel | 72 | gallons | CO2 | 22,600 | lbs CO2/1000 gallons | 1,627 | 0.8136 | 1 | 0.74 | 0.8136 |
|  |  |  |  |  | CH4 | 0.0066 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0000 |
|  |  |  |  |  | N2O | 0.0013 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0000 |
| 30 | Generator #11 Goddard | Natural Gas | 75,936 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 9,114 | 4.5569 | 1 | 4.13 | 4.5569 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 0 | 0.0001 | 25 | 0.00 | 0.0022 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 0 | 0.0000 | 298 | 0.00 | 0.0025 |
| 32 | Generator #12 Rec Center | Diesel | 734 | gallons | CO2 | 22,600 | lbs CO2/1000 gallons | 16,582 | 8.2908 | 1 | 7.52 | 8.2908 |
|  |  |  |  |  | CH4 | 0.0066 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0001 |
| 33 | Generator #13 Gateway 2 | Diesel | 519 | gallons | CO2 | 22,600 | lbs CO2/1000 gallons | 11,723 | 5.8613 | 1 | 5.32 | 5.8613 |
|  |  |  |  |  | CH4 | 0.0066 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0000 |
|  |  |  |  |  | N2O | 0.0013 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0001 |
| 34 | Generator #14 Faraday | Natural Gas | 22,152 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 2,659 | 1.3293 | 1 | 1.21 | 1.3293 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 0 | 0.0000 | 25 | 0.00 | 0.0006 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 0 | 0.0000 | 298 | 0.00 | 0.0007 |
| 35 | Gateway Cogen Units | Natural Gas | 669,940 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 80,406 | 40.2030 | 1 | 36.47 | 40.2030 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 2 | 0.0008 | 25 | 0.02 | 0.0190 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 0 | 0.0001 | 298 | 0.02 | 0.0220 |
| 37 | Generator #15 Foisie | Natural Gas | 72,702 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 8,726 | 4.3628 | 1 | 3.96 | 4.3628 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 0 | 0.0001 | 25 | 0.00 | 0.0021 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 0 | 0.0000 | 298 | 0.00 | 0.0024 |
| 15 | Power House Boiler #1 | Natural Gas | 19,581,138 | cubic feet | CO2 | 120,000 | lbs CO2/106 cubic feet | 2,349,737 | 1,174.8683 | 1 | 1,065.82 | 1,174.8683 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 44 | 0.0222 | 25 | 0.50 | 0.5558 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 4 | 0.0022 | 298 | 0.58 | 0.6432 |
|  |  | #2 Fuel Oil | 0 | gallons | CO2 | 22,509 | lbs CO2/1000 gallons | 0 | 0.0000 | 1 | 0.00 | 0.0000 |
|  |  |  |  |  | CH4 | 0.9039 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0000 |
|  |  |  |  |  | N2O | 0.1100 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0000 |
| 16 | Power House Boiler #2 | Natural Gas | 25,260,994 | cubic feet | CO2 | 120,000 | lbs CO2/106 cubic feet | 3,031,319 | 1,515.6597 | 1 | 1,374.98 | 1,515.6597 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 57 | 0.0287 | 25 | 0.65 | 0.7170 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 6 | 0.0028 | 298 | 0.75 | 0.8298 |
| 17 | Power House Boiler #3 | Natural Gas | 36,731,210 | cubic feet | CO2 | 120,000 | lbs CO2/106 cubic feet | 4,407,745 | 2,203.8726 | 1 | 1,999.32 | 2,203.8726 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 83 | 0.0417 | 25 | 0.95 | 1.0426 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 8 | 0.0040 | 298 | 1.09 | 1.2066 |
|  |  | #2 Fuel Oil | 0 | gallons | CO2 | 22,509 | lbs CO2/1000 gallons | 0 | 0.0000 | 1 | 0.00 | 0.0000 |
|  |  |  |  |  | CH4 | 0.9039 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0000 |
|  |  |  |  |  | N2O | 0.1100 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0000 |
| 20 | Off Campus Residences | Natural Gas | 27,311,034 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 3,277,861 | 1,638.9305 | 1 | 1,486.81 | 1,638.9305 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 62 | 0.0310 | 25 | 0.70 | 0.7752 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 6 | 0.0030 | 298 | 0.81 | 0.8971 |
| 21 | On Campus Sources, 1st Set | Natural Gas | 6,490,754 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 779,018 | 389.5091 | 1 | 353.36 | 389.5091 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 15 | 0.0074 | 25 | 0.17 | 0.1842 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 1 | 0.0007 | 298 | 0.19 | 0.2132 |
| 22 | On Campus Sources, 2nd Set | Natural Gas | 4,375,598 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 525,158 | 262.5789 | 1 | 238.21 | 262.5789 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 10 | 0.0050 | 25 | 0.11 | 0.1242 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 1 | 0.0005 | 298 | 0.13 | 0.1437 |
| 23 | On Campus Sources, 3rd Set | Natural Gas | 9,037,517 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 1,084,680 | 542.3398 | 1 | 492.00 | 542.3398 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 21 | 0.0103 | 25 | 0.23 | 0.2565 |
| 24 | Off Campus Residences | #2 Fuel Oil | 0 | gallons | CO2 | 22,509 | lbs CO2/1000 gallons | 0 | 0.0000 | 1 | 0.00 | 0.0000 |
|  |  |  |  |  | CH4 | 0.9039 | lbs CH4/1000 gallons | 0 | 0.0000 | 25 | 0.00 | 0.0000 |
|  |  |  |  |  | N2O | 0.1100 | lbs N2O/1000 gallons | 0 | 0.0000 | 298 | 0.00 | 0.0000 |
| 27 | Gateway Cleaver Brooks Boilers (2) | Natural Gas | 10,566,370 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 1,268,172 | 634.0860 | 1 | 575.23 | 634.0860 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 24 | 0.0120 | 25 | 0.27 | 0.2999 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 2 | 0.0012 | 298 | 0.31 | 0.3471 |
| 26 | Gateway Lattner Boilers (2) | Natural Gas | 2,949,778 | cubic feet | CO2 | 120,020 | lbs CO2/106 cubic feet | 354,031 | 177.0157 | 1 | 160.59 | 177.0157 |
|  |  |  |  |  | CH4 | 2.2708 | lbs CH4/106 cubic feet | 7 | 0.0033 | 25 | 0.08 | 0.0837 |
|  |  |  |  |  | N2O | 0.2205 | lbs N2O/106 cubic feet | 1 | 0.0003 | 298 | 0.09 | 0.0969 |

Global

Notes:

1) Emission factors taken from MassDEP's GHG emissions factors spreadsheet, 20