**University of North Carolina at Chapel Hill**
Chapel Hill, North Carolina
*Orange County*
Facility ID # 6800043
Permit # 03069T33

**2015 Annual Emissions Inventory Summary**
**Cogeneration Facility**

| Pollutant | Units | Boiler #6 | | | | Boiler #6 | Boiler #7 | | | | Boiler #7 | Boiler #8 | | Boiler #8 | Railcar Dump Pits | Coal Storage Silos | Coal Silo Conveyors | Sorbent Railcar Dump Pit | Ash Silo w/ Loadout | Coal Conveyor & Crusher Building | Blackstart Generators G1 & G2 | Fuel Oil Storage Tanks Cogen | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Natural Gas | Fuel Oil | Wood | Coal | Total | Natural Gas | Fuel Oil | Wood | Coal | Total | Natural Gas | Fuel Oil | Total | | | | | | | | | |
| **Criteria Pollutants** | | | | | | | | | | | | | | | | | | | | | | | |
| PM | tpy | 0.75 | 1.19E-05 | 0.00E+00 | 5.31 | 6.05 | 0.64 | 1.32E-05 | | 4.64 | 5.28 | 0.051 | 3.17E-04 | 0.051 | 6.17E-03 | 0.0043 | 0.0043 | 1.47E-02 | 1.57 | 0.64 | 0.15 | | 13.8 |
| PM-10 | tpy | 0.75 | 1.19E-05 | 0.00E+00 | 5.31 | 6.05 | 0.64 | 1.32E-05 | | 4.64 | 5.28 | 0.051 | 9.60E-05 | 0.051 | 2.92E-03 | 0.0043 | 0.0043 | 6.96E-03 | 1.57 | 0.64 | 0.15 | | 13.8 |
| PM-2.5 | tpy | 0.75 | 2.97E-06 | 0.00E+00 | 3.06 | 3.81 | 0.64 | 3.30E-06 | | 2.68 | 3.31 | 0.051 | 2.40E-05 | 0.051 | 9.17E-04 | 0.0040 | 0.0040 | 2.19E-03 | 1.50 | 0.61 | 0.15 | | 9.4 |
| NOx | tpy | 26.05 | 3.17E-04 | 0.00E+00 | 161.07 | 187.12 | 24.50 | 3.90E-04 | | 155.95 | 180.45 | 0.390 | 7.46E-04 | 0.390 | | | | | | | 2.91 | | 370.9 |
| VOC | tpy | 0.54 | 1.80E-06 | 0.00E+00 | 0.29 | 0.83 | 0.46 | 2.00E-06 | | 0.25 | 0.71 | 0.037 | 1.92E-05 | 0.037 | | | | | | | 0.13 | 0.21 | 1.9 |
| CO | tpy | 8.28 | 4.50E-05 | 0.00E+00 | 21.40 | 29.68 | 7.03 | 5.00E-05 | | 18.71 | 25.75 | 0.561 | 4.80E-04 | 0.561 | | | | | | | 0.39 | | 56.4 |
| SO2 | tpy | 0.00 | 2.44E-04 | | 123.94 | 123.94 | 0.00 | 2.82E-04 | | 112.71 | 112.71 | 0.004 | 2.76E-05 | 0.004 | | | | | | | 0.00 | | 236.7 |
| **Greenhouse Gases** | | | | | | | | | | | | | | | | | | | | | | | |
| CO2 | tpy | 14,137 | 0.24 | 0.00 | 153,653 | 167,791 | 10,053 | 2.23E-01 | | 112,481 | 122,534 | 1,029 | 3 | 1,031 | | | | | | | 249.42 | | 291,605 |
| Methane | tpy | 0.22 | 8.17E-06 | 0.00E+00 | 0.2 | 0.46 | 0.19 | 9.07E-06 | | 0.21 | 0.40 | 0.015 | 8.71E-05 | 0.015 | | | | | | | 0.010 | | 0.89 |
| Nitrous Oxide | tpy | 0.022 | 1.63E-06 | 0.00E+00 | 2.2 | 2.24 | 1.90E-02 | 1.81E-06 | | 1.94 | 1.95 | 0.002 | 1.74E-05 | 0.002 | | | | | | | 0.0020 | | 4.2 |
| **HAPs/TAPs** | | | | | | | | | | | | | | | | | | | | | | | |
| 1,3 Butadiene | lb/yr | | | | | 0 | | | | | 0 | | | 0 | | | | | | | | | 0.0 |
| 2,3,7,8-TCDD | lb/yr | | | 0.00E+00 | 6.88E-07 | 6.88E-07 | | | | 6.01E-07 | 6.01E-07 | | | 0 | | | | | | | | | 0.0 |
| 2,4-Dinitrotoluene | lb/yr | | | | 1.35E-02 | 1.35E-02 | | | | 0.01 | 0.01 | | | 0 | | | | | | | | | 0.0 |
| 2-Chloroacetophenone | lb/yr | | | | 0.34 | 0.34 | | | | 0.29 | 0.29439025 | | | 0 | | | | | | | | | 0.6 |
| Acetaldehyde | lb/yr | | | 0.00E+00 | 27.41 | 27.41 | | | | 23.97 | 23.97 | | | 0 | | | | | | | 0.08 | | 51.5 |
| Acetic Acid | lb/yr | | | | | 0 | | | | | 0 | | | 0 | | | | | | | | | 0.0 |
| Acetophenone | lb/yr | | | 0.00E+00 | 0.72 | 0.72 | | | | 0.63 | 0.63 | | | 0 | | | | | | | | | 1.4 |
| Acrolein | lb/yr | | | 0.00E+00 | 13.95 | 13.95 | | | | 12.20 | 12.20 | | | 0 | | | | | | | 0.02 | | 26.2 |
| Antimony | lb/yr | | 0.00E+00 | 0.00E+00 | 0.41 | 0.41 | | 0.00E+00 | | 0.35 | 0.35 | | | 0 | | | | | | | | | 0.8 |
| Arsenic | lb/yr | 0.04 | 1.01E-07 | 0.00E+00 | 0.38 | 0.42 | 3.35E-02 | 1.12E-07 | | 0.33 | 0.36 | 0.003 | 1.08E-04 | 0.003 | | | | | | | | | 0.8 |
| Benzene | lb/yr | 0.4 | 4.95E-05 | 0.00E+00 | 62.52 | 62.93 | 3.52E-01 | 5.50E-05 | | 54.67 | 55.02 | 0.028 | 5.28E-04 | 0.029 | | | | | | | 2.37 | | 120.4 |
| Benzo(a)pyrene | lb/yr | | | 0.00E+00 | 1.83E-03 | 1.83E-03 | | | | 0.00 | 1.60E-03 | | | 0 | | | | | | | | | 0.0 |
| Benzyl Chloride | lb/yr | | | | 33.66 | 33.66321 | | | | 29.44 | 29.44 | | | 0 | | | | | | | | | 63.1 |
| Beryllium | lb/yr | | 7.56E-08 | 0.00E+00 | 0.07 | 0.07 | | 8.40E-08 | | 0.06 | 0.06 | | 8.06E-05 | 8.06E-05 | | | | | | | | | 0.1 |
| Biphenyl | lb/yr | | | | 8.18E-02 | 0.08 | | | | 7.15E-02 | 0.07 | | | 0 | | | | | | | | | 0.2 |
| Bis(2-ethylhexyl)phthalate (DEHP) | lb/yr | | | | 3.51 | 3.51 | | | | 3.07 | 3.07 | | | 0 | | | | | | | | | 6.6 |
| Bromine | lb/yr | | | | 10.29 | 10.29 | | | | 9.00 | 9.00 | | | 0 | | | | | | | | | 19.3 |
| Bromoform | lb/yr | | | | 1.88 | 1.88 | | | | 1.64 | 1.64 | | | 0 | | | | | | | | | 3.5 |
| Cadmium | lb/yr | 0.22 | 7.56E-08 | 0.00E+00 | 1.74E-01 | 0.39 | 1.84E-01 | 8.40E-08 | | 1.53E-01 | 0.34 | 0.015 | 8.06E-05 | 0.015 | | | | | | | | | 0.74 |
| Carbon Disulfide | lb/yr | | | | 6.25 | 6.25 | | | | 5.47 | 5.47 | | | 0 | | | | | | | | | 11.7 |
| Chlorine | lb/yr | | | 0.00E+00 | 135.55 | 135.55 | | | | 118.54 | 118.54 | | | | | | | | | | | | 254.1 |
| Chlorobenzene | lb/yr | | | 0.00E+00 | 1.06 | 1.06 | | | | 0.93 | 0.93 | | | 0 | | | | | | | | | 2.0 |
| Chloroform | lb/yr | | | 0.00E+00 | 2.84 | 2.84 | | | | 2.48 | 2.48 | | | 0 | | | | | | | | | 5.3 |
| Chromium | lb/yr | 0.28 | 7.56E-08 | 0.00E+00 | 6.02 | 6.30 | 2.34E-01 | 8.40E-08 | | 5.27 | 5.50 | 0.019 | 8.06E-05 | 0.019 | | | | | | | | | 11.82 |
| Chromium VI | lb/yr | 0.28 | 2.22E-08 | | 0.01 | 0.29 | 2.34E-01 | 2.47E-08 | | 0.01 | 0.24 | 0.019 | 2.37E-05 | 0.019 | | | | | | | | | 0.55 |
| Cobalt | lb/yr | | 0.00E+00 | 0.00E+00 | 0.35 | 0.35 | | 0.00E+00 | | 0.30 | 0.30 | | | 0 | | | | | | | | | 0.6 |
| Cumene | lb/yr | | | | 0.25 | 0.25 | | | | 0.22 | 0.22 | | | 0 | | | | | | | | | 0.5 |
| Cyanide | lb/yr | | | | 120.23 | 120.23 | | | | 105.14 | 105.14 | | | 0 | | | | | | | | | 225.4 |
| Dibenzofurans | lb/yr | | | | 9.67E-03 | 0.01 | | | | 8.45E-03 | 0.01 | | | 0 | | | | | | | | | 0.0 |
| Dichlorobenzene | lb/yr | 0.24 | | | | 0.236514972 | 2.01E-01 | | | | 2.01E-01 | 0.016 | | 0.016 | | | | | | | | | 0.5 |
| Dimethyl Sulfate | lb/yr | | | | 2.31 | 2.31 | | | | 2.02 | 2.02 | | | 0 | | | | | | | | | 4.3 |
| Ethyl Benzene | lb/yr | | 1.47E-05 | 0.00E+00 | 4.52 | 4.52 | | 1.63E-05 | | 3.95 | 3.95 | | 1.57E-04 | 1.57E-04 | | | | | | | | | 8.5 |
| Ethyl Chloride | lb/yr | | | | 2.02 | 2.02 | | | | 1.77 | 1.77 | | | 0 | | | | | | | | | 3.8 |
| Ethylene Dibromide | lb/yr | | | | 5.77E-02 | 0.06 | | | | 5.05E-02 | 0.05 | | | 0 | | | | | | | | | 0.1 |
| Ethylene Dichloride | lb/yr | | | 0.00E+00 | 1.92 | 1.92 | | | | 1.68 | 1.68 | | | 0 | | | | | | | | | 3.6 |
| Ethylene Glycol | lb/yr | | | | | 0 | | | | | 0 | | | 0 | | | | | | | | | 0.0 |
| Ethylene Oxide | lb/yr | | | | | 0 | | | | | 0 | | | 0 | | | | | | | | | 0.0 |
| Flouride | lb/yr | | 6.71E-04 | | | 0.00 | | 7.46E-04 | | | 0.00 | | 7.16E-03 | 7.16E-03 | | | | | | | | | 0.0 |
| Formaldehyde | lb/yr | 14.78 | 8.64E-04 | 0.00E+00 | 82.58 | 97.37 | 1.26E+01 | 9.60E-04 | | 72.22 | 84.78 | 1.001 | 9.22E-03 | 1.011 | | | | | | | 0.24 | | 183.4 |
| Glycol Ethers | lb/yr | | | | | 0 | | | | | 0 | | | 0 | | | | | | | | | 0.0 |
| Hexane | lb/yr | 354.77 | | | 3.22 | 357.99 | 3.01E+02 | | | 2.82 | 304.18 | 24.036 | | 24.036 | | | | | | | | | 686.2 |
| Hydrogen Chloride | lb/yr | | | 0.00E+00 | 16,064.78 | 16,064.78 | | | | 14048.91 | 14048.91 | | | 0 | | | | | | | | | 30113.7 |
| Hydrogen Fluoride | lb/yr | | | | 288.66 | 288.66 | | | | 252.44 | 252.44 | | | 0 | | | | | | | | | 541.1 |
| Isophorone | lb/yr | | | | 27.89 | 27.89 | | | | 24.39 | 24.39 | | | 0 | | | | | | | | | 52.3 |
| Lead | lb/yr | 0.10 | 2.27E-07 | 0.00E+00 | 2.21 | 2.31 | 8.37E-02 | 2.52E-07 | | 1.93 | 2.02 | 0.007 | 2.42E-04 | 0.007 | | | | | | | | | 4.3 |
| Manganese | lb/yr | 0.07 | 1.51E-07 | 0.00E+00 | 15.06 | 15.14 | 6.36E-02 | 1.68E-07 | | 13.17 | 13.23 | 0.005 | 1.61E-04 | 0.005 | | | | | | | | | 28.4 |
| Mercury | lb/yr | 0.05 | 7.56E-06 | 0.00E+00 | 1.05 | 1.10 | 4.35E-02 | 8.40E-06 | | 0.92 | 0.96 | 0.003 | 8.06E-05 | 0.004 | | | | | | | | | 2.1 |
| Methly Chloride | lb/yr | | | 0.00E+00 | 25.49 | 25.49 | | | | 22.29 | 22.29 | | | 0 | | | | | | | | | 47.8 |
| Methly Ethyl Ketone | lb/yr | | | 0.00E+00 | 18.76 | 18.76 | | | | 16.40 | 16.40 | | | 0 | | | | | | | | | 35.2 |
| Methyl Bromide | lb/yr | | | | 7.69 | 7.69 | | | | 6.73 | 6.73 | | | 0 | | | | | | | | | 14.4 |
| Methyl Chloroform | lb/yr | | 4.25E-06 | 0.00E+00 | | 4.25E-06 | | 4.72E-06 | | | 4.72E-06 | | 4.53E-05 | 4.53E-05 | | | | | | | | | 0.0 |
| Methyl Hydrazine | lb/yr | | | | 8.18 | 8.18 | | | | 7.15 | 7.15 | | | 0 | | | | | | | | | 15.3 |
| Methyl Methacrylate | lb/yr | | | | 0.96 | 0.96 | | | | 0.84 | 0.84 | | | 0 | | | | | | | | | 1.8 |
| Methyl Tert Butyl Ether | lb/yr | | | | 1.68 | 1.68 | | | | 1.47 | 1.47 | | | 0 | | | | | | | | | 3.2 |
| Methylene Chloride | lb/yr | | | 0.00E+00 | 13.95 | 13.95 | | | | 12.20 | 12.20 | | | 0 | | | | | | | | | 26.1 |
| Napthalene | lb/yr | 0.12 | 5.99E-08 | 0.00E+00 | 0.63 | 0.75 | 1.02E-01 | 6.66E-06 | | 0.55 | 0.65 | 0.008 | 6.39E-05 | 0.008 | | | | | | | 0.40 | | 1.8 |
| Nickel | lb/yr | 0.41 | 7.56E-08 | 0.00E+00 | 12.26 | 12.68 | 3.52E-01 | 8.40E-08 | | 10.72 | 11.07 | 0.028 | 8.06E-05 | 0.028 | | | | | | | | | 23.8 |
| PAH | lb/yr | | | | | 0 | | | | | 0 | | | 0 | | | | | | | | | 0.0 |
| Phenol | lb/yr | | | 0.00E+00 | 0.77 | 0.77 | | | | 0.67 | 0.67 | | | 0 | | | | | | | | | 1.4 |
| Phosphorus | lb/yr | | | 0.00E+00 | 1.83 | 1.83 | | | | 1.60 | 1.60 | | | | | | | | | | | | 3.4 |
| POM | lb/yr | 0.13 | 5.94E-07 | 0.00E+00 | 2.81 | 2.94 | 1.11E-01 | 6.60E-07 | | 2.46 | 2.57 | 0.009 | 6.34E-04 | 0.009 | | | | | | | | | 5.5 |
| Propionaldehyde | lb/yr | | | 0.00E+00 | 18.27 | 18.27 | | | | 15.98 | 15.98 | | | 0 | | | | | | | | | 34.3 |
| Propylene | lb/yr | | | | | 0 | | | | | 0 | | | 0 | | | | | | | 0.65 | | 0.6 |
| Selenium | lb/yr | | 3.78E-07 | 0.00E+00 | 0.27 | 0.27 | | 4.20E-07 | | 0.24 | 0.24 | | 4.03E-04 | 4.03E-04 | | | | | | | | | 0.5 |
| Styrene | lb/yr | | | 0.00E+00 | 1.20 | 1.20 | | | | 1.05 | 1.05 | | | 0 | | | | | | | | | 2.3 |
| Tetrachloroethane | lb/yr | | | | 2.07 | 2.07 | | | | 1.81 | 1.81 | | | 0 | | | | | | | | | 3.9 |
| Toluene | lb/yr | 0.67 | 1.43E-03 | 0.00E+00 | 11.54 | 12.21 | 5.69E-01 | 1.59E-03 | | 10.09 | 10.66 | 0.045 | 1.53E-02 | 0.061 | | | | | | | 0.86 | | 23.8 |
| Vinyl Acetate | lb/yr | | | | 0.37 | 0.37 | | | | 0.32 | 0.32 | | | 0 | | | | | | | | | 0.7 |
| Xylenes | lb/yr | | 2.52E-05 | 0.00E+00 | 1.78 | 1.78 | | 2.80E-05 | | 1.56 | 1.56 | | 2.69E-04 | 2.69E-04 | | | | | | | 0.59 | | 3.9 |