

Air Quality Testing was performed under United States Environmental Protection Agency Protocols for Air Emission Testing procedures for municipal solid waste combustors, as specified in 40 US Code of Federal Register Sub-Part 60.

Ash Quality Testing was performed according to methods defined by the United States Environmental Protection Agency in the TCPL Test regimen (Toxic Characteristic Leaching Procedure Tests).

All tests were performed by certified third party laboratories.

Tests were completed during system evaluations based upon deliberate operating imbalances in an effort to determine system performance for various types of feedstock.

The United States Environmental Protection Agency has three levels of emission quality, depending on the amount of waste processed per day. The standards shown are the most restrictive limits, for municipal solid waste combustors with daily processing capacities of greater than 250 tons.

The values shown are the mathematical average of various samples collected and measured during the testing series indicated.

Results from these tests have been used as subordinating scientific evidence to verifying the CMI Waste Transformation System's performance capabilities for various local, state and federal operating permits.

| US EPA 40 CFR Part 60.33 Capacity > 250 TPD | Air Emissions Standard | York Laboratories Laramie, Wyoming MSW 3 Tons | Western Research Institute Laramie, Wyoming PVC 3 Tons | Western Research Institute Laramie, Wyoming Polymer/Rubber 3 Tons |
|---|-----------------------------------|--|---|--|
| Dust (Particulate) | 0.03 gr/dscf | 0.005 | 0.00558 | 0.0021 |
| Hydrogen Chloride | 25 ppm | 10.5 | 15.56 | 4.42 |
| SOx | 50 ppm | not detected | 1.45 | 22 |
| NOx | 150 ppm | 31 | 76 | 54 |
| VOCs | 150 ppm | not tested | not tested | not tested |
| CO | 150 ppm | 23 | 2 | <2 |
| Dioxins and Furans | 125 ng/cft | not detected | not tested | 27.22 |
| Total Metals | No Standard | 4.6 | not tested | 0.001 |
| Mercury and Compounds | .08 mg/m ³ | <0.1 | not tested | 0.33 |
| Lead and Compounds | < 0.20 mg/m ³ | 0.227 | not tested | 0.017 |
| Cadmium and Compounds | < 0.02 mg/m ³ | 0.076 | not tested | 0.1 |
| US EPA TPCL | Ash Emissions Limits | | | |
| Chlorides | No Limit | 28 | 1300 | 1320 |
| Silver | No Limit | <0.1 | <0.07 | <0.07 |
| Barium | 100 mg / L | 0.16 | 0.23 | 0.25 |
| Cadmium | 1 mg / L | <0.1 | <0.1 | 1.04 |
| Nickel | No Limit | 0.13 | <0.2 | 0.21 |
| Lead | 5 mg / L | 0.94 | <0.05 | 2.2 |
| Arsenic | 5 mg / L | <0.05 | <0.05 | <0.05 |
| Selenium | 1 mg / L | <0.05 | <0.05 | <0.05 |
| Chromium | 1 mg / L | <0.1 | <0.08 | 2.16 |
| Mercury | 0.2 mg / L | not detected | <0.002 | <0.002 |
| Thallium | No Limit | not detected | <0.05 | <0.05 |

| US EPA 40 CFR Part 60.33 Capacity > 250 TPD | Air Emissions Standard | Western Research Institute Laramie, Wyoming Auto and Truck Tires 3 Tons | Western Research Institute Laramie, Wyoming Heavy Equipment Tires 3 Tons | Western Research Institute Laramie, Wyoming Auto Tires 3 Tons |
|---|-----------------------------------|--|---|--|
| Dust (Particulate) | 0.03 gr/dscf | 0.00558 gr/dscf | 0.00492 gr/dscf | 0.0021 gr/dscf |
| Hydrogen Chloride | 25 ppm | 15.56 | 24 | 3.4 |
| SOx | 50 ppm | 13.85 | 70 | 12.21 |
| NOx | 150 ppm | 99 | 84 | 75 |
| VOCs | 150 ppm | 0 | 0 | 0 |
| CO | 150 ppm | 3.85 | 75 | 15 |
| Dioxins and Furans | 125 ng/cft | <0.14 | 0.224 | not tested |
| Total Metals | No Standard | <2.1 | not detected | 2.57 |
| Mercury and Compounds | .08 mg/m ³ | not detected | not detected | not detected |
| Lead and Compounds | < 0.20 mg/m ³ | 0.017 | 0.017 | <0.003 |
| Cadmium and Compounds | < 0.02 mg/m ³ | <0.004 | <0.004 | 0.002 |
| US EPA TPCL | Ash Emissions Limits | | | |
| Chlorides | No Limit | not sampled | not sampled | 206 |
| Silver | No Limit | not sampled | <0.5 | <0.065 |
| Barium | 100 mg / L | not sampled | 1.31 | 0.13 |
| Cadmium | 1 mg / L | not sampled | 0.73 | 0.015 |
| Nickel | No Limit | not sampled | 0.047 | 0.031 |
| Lead | 5 mg / L | not sampled | 0.342 | 0.053 |
| Arsenic | 5 mg / L | not sampled | 0.077 | <0.092 |
| Selenium | 1 mg / L | not sampled | not detected | <0.092 |
| Chromium | 1 mg / L | not sampled | 0.034 | 0.031 |
| Mercury | 0.2 mg / L | not sampled | not detected | not detected |
| Thallium | No Limit | not sampled | <0.04 | <0.046 |

| US EPA 40 CFR Part 60.33 Capacity > 250 TPD | Air Emissions Standard | Western Research Institute Laramie, Wyoming Bio-medical Waste 3 Tons | Western Research Institute Laramie, Wyoming Oil Sludge/Absorbent 3 Tons |
|---|-----------------------------------|---|--|
| Dust (Particulate) | 0.03 gr/dscf | .00549gr/dscf | 0.0042 gr/dscf |
| Hydrogen Chloride | 25 ppm | 4.03 | 11 |
| SOx | 50 ppm | not detected | <2 |
| NOx | 150 ppm | 55 | 45.4 |
| VOCs | 150 ppm | 0 | 0 |
| CO | 150 ppm | 4.35 | 36 |
| Dioxins and Furans | 125 ng/cft | not tested | not tested |
| Total Metals | No Standard | 2.24 | 15 |
| Mercury and Compounds | .08 mg/m ³ | not detected | not detected |
| Lead and Compounds | < 0.20 mg/m ³ | 0.106 | 0.24 |
| Cadmium and Compounds | < 0.02 mg/m ³ | 0.0099 | 0.0075 |
| US EPA TPCL | Ash Emissions Limits | | |
| Chlorides | No Limit | not tested | not tested |
| Silver | No Limit | 0.006 | <0.007 |
| Barium | 100 mg / L | 0.083 | 0.099 |
| Cadmium | 1 mg / L | 0.223 | 0.154 |
| Nickel | No Limit | 0.457 | not detected |
| Lead | 5 mg / L | 0.408 | 0.063 |
| Arsenic | 5 mg / L | 0.09 | <0.005 |
| Selenium | 1 mg / L | <0.1 | <0.05 |
| Chromium | 1 mg / L | 0.014 | <0.008 |
| Mercury | 0.2 mg / L | <0.002 | <0.002 |
| Thallium | No Limit | <0.1 | not detected |

| US EPA 40 CFR Part 60.33 Capacity > 250 TPD | Air Emissions Standard | Western Research Institute Anchorage, Alaska Oil Sludge/Absorbent 25 Tons | Western Research Institute Anchorage, Alaska Bio-Medical Waste 25 Tons |
|---|-----------------------------------|--|---|
| Dust (Particulate) | 24 mg / m ³ | 4.05 | 5.03 |
| Hydrogen Chloride | 25 ppm | 5.5 | 13 |
| SOx | 50 ppm | 6.65 | 7.1 |
| NOx | 150 ppm | 21 | 58 |
| VOCs | 150 ppm | 0 | 0 |
| CO | 150 ppm | 3 | <2 |
| Dioxins and Furans | 125 ng/cft | 0.096 | 6.66 |
| Total Metals | No Standard | 1.09 | 1.07 |
| Mercury and Compounds | .08 mg/m ³ | 0.00101 | 0.007 |
| Lead and Compounds | < 0.20 mg/m ³ | 0.0371 | 0.025 |
| Cadmium and Compounds | < 0.02 mg/m ³ | 0.0022 | 0.0036 |
| US EPA TPCL | Ash Emissions Limits | | |
| Chlorides | No Limit | not tested | not tested |
| Silver | No Limit | <0.007 | 0.042 |
| Barium | 100 mg / L | 0.155 | 0.155 |
| Cadmium | 1 mg / L | 0.073 | 0.458 |
| Nickel | No Limit | not detected | not detected |
| Lead | 5 mg / L | 0.098 | 0.45 |
| Arsenic | 5 mg / L | <0.005 | <0.005 |
| Selenium | 1 mg / L | <0.050 | <0.050 |
| Chromium | 1 mg / L | 0.025 | 0.082 |
| Mercury | 0.2 mg / L | <0.002 | <0.002 |
| Thallium | No Limit | not detected | not detected |

| US EPA 40 CFR Part 60.33 Capacity > 250 TPD | Air Emissions Standard | Western Research Institute Anchorage, Alaska Auto and Truck Tires 25 Tons | Western Research Institute Anchorage, Alaska Municipal Solid Waste 25 Tons | Am Test Laboratories Anchorage, Alaska Auto Fluff 25 Tons |
|---|-----------------------------------|--|---|--|
| Dust (Particulate) | 24 mg / m ³ | 15.56 | 3.53 | 19.45 |
| Hydrogen Chloride | 25 ppm | 24 | 13 | 18.3 |
| SOx | 50 ppm | 11.6 | 18 | 21 |
| NOx | 150 ppm | 71 | 54.5 | 46.7 |
| VOCs | 150 ppm | 0 | 0 | 0 |
| CO | 150 ppm | 5.12 | 3 | 2 |
| Dioxins and Furans | 125 ng/cft | 1.24 | not tested | 3.1 |
| Total Metals | No Standard | 0.98 | 3.7 | 2.43 |
| Mercury and Compounds | .08 mg/m ³ | 0.0006 | 0.01886 | 0.0581 |
| Lead and Compounds | < 0.20 mg/m ³ | 0.0104 | 0.295 | 0.185 |
| Cadmium and Compounds | < 0.02 mg/m ³ | 0.0028 | 0.0124 | 0.158 |
| US EPA TPCL | Ash Emissions Limits | | | |
| Chlorides | No Limit | not sampled | not tested | not sampled |
| Silver | No Limit | 0.02 | <0.007 | 0.01 |
| Barium | 100 mg / L | 0.079 | 0.155 | 0.232 |
| Cadmium | 1 mg / L | 0.37 | 0.073 | 2.18 |
| Nickel | No Limit | not detected | not detected | not detected |
| Lead | 5 mg / L | 1.33 | 0.098 | 0.316 |
| Arsenic | 5 mg / L | <0.005 | <0.005 | <0.005 |
| Selenium | 1 mg / L | <0.050 | <0.050 | <0.050 |
| Chromium | 1 mg / L | <0.008 | 0.025 | <0.008 |
| Mercury | 0.2 mg / L | <0.002 | <0.002 | <0.002 |
| Thallium | No Limit | not detected | not detected | not detected |

| US EPA 40 CFR Part 60.33 Capacity > 250 TPD | Air Emissions Standard | Am Test Laboratories Anchorage, Alaska Railroad Ties/Used Oil 25 Tons |
|---|-----------------------------------|--|
| Dust (Particulate) | 24 mg / m ³ | 7.3 |
| Hydrogen Chloride | 25 ppm | 9.8 |
| SOx | 50 ppm | 11 |
| NOx | 150 ppm | 81 |
| VOCs | 150 ppm | 0 |
| CO | 150 ppm | <4 |
| Dioxins and Furans | 125 ng/cft | 0.558 |
| Total Metals | No Standard | 2.95 |
| Mercury and Compounds | .08 mg/m ³ | 0.0027 |
| Lead and Compounds | < 0.20 mg/m ³ | 0.1383 |
| Cadmium and Compounds | < 0.02 mg/m ³ | 0.0119 |
| US EPA TPCL | Ash Emissions Limits | |
| Chlorides | No Limit | not tested |
| Silver | No Limit | 0.009 |
| Barium | 100 mg / L | 0.202 |
| Cadmium | 1 mg / L | 0.779 |
| Nickel | No Limit | not detected |
| Lead | 5 mg / L | 0.208 |
| Arsenic | 5 mg / L | 0.011 |
| Selenium | 1 mg / L | <0.050 |
| Chromium | 1 mg / L | <0.008 |
| Mercury | 0.2 mg / L | <0.002 |
| Thallium | No Limit | not detected |

| US EPA 40 CFR Part 60.33 Capacity > 250 TPD | Air Emissions Standard | CORE Labs K.L., Malaysia Bio-Medical Waste 3 Tons | CORE Labs K.L., Malaysia MSW 3 Tons | CORE Labs K.L., Malaysia Industrial Waste 3 Tons |
|---|-----------------------------------|--|--|---|
| Dust (Particulate) | 24 mg / m ³ | 6.5 | 5.54 | 10.1 |
| Hydrogen Chloride | 25 ppm | 11 | 12 | 6.4 |
| SOx | 50 ppm | 21 | 17 | 11 |
| NOx | 150 ppm | 61 | 53 | 88 |
| VOCs | 150 ppm | 0 | 0 | 0 |
| CO | 150 ppm | 41 | 31 | 11 |
| Dioxins and Furans | 125 ng/cft | 0.877 | 1.989 | not tested |
| Total Metals | No Standard | 1.15 | 0.89 | 1.17 |
| Mercury and Compounds | .08 mg/m ³ | 0.05 | 0.04 | 0.006 |
| Lead and Compounds | < 0.20 mg/m ³ | 0.15 | 0.177 | 0.055 |
| Cadmium and Compounds | < 0.02 mg/m ³ | 0.008 | 0.013 | 0.013 |
| US EPA TPCL | Ash Emissions Limits | | | |
| Chlorides | No Limit | not tested | not sampled | not sampled |
| Silver | No Limit | 0.03 | 0.01 | 0.09 |
| Barium | 100 mg / L | 0.31 | 0.27 | 0.88 |
| Cadmium | 1 mg / L | 1.99 | 0.65 | <0.1 |
| Nickel | No Limit | not detected | not detected | not detected |
| Lead | 5 mg / L | 0.415 | 1.1 | <0.50 |
| Arsenic | 5 mg / L | <0.005 | <0.005 | <0.005 |
| Selenium | 1 mg / L | <0.050 | <0.050 | <0.050 |
| Chromium | 1 mg / L | <0.008 | <0.008 | <0.008 |
| Mercury | 0.2 mg / L | <0.002 | <0.002 | <0.002 |
| Thallium | No Limit | not detected | not detected | not detected |