

2003 ANNUAL STACK TEST RESULTS - Onondaga County, NY, Resource Recovery Facility

>>> Testing performed May 12-21, 2003						
Constituent	Average Measured Emissions			Permit	% of	Pass/
	Unit 1	Unit 2	Unit 3	Limit ¹	Limit ²	Fail?
					Facility Ave	(P/F)
Particulates (gr/dscf @ 7% O ₂)	0.000982	0.00213	0.000945	0.010	13.5	P
Particulates (mg/dscm)	2.25	4.87	2.16	27	11.5	P
Sulfur Dioxide (ppmdv @ 7% O ₂)	0.27	0.00	1.42	30	1.9	P
Sulfur Dioxide (lb/hr)	0.13	0.00	0.58	16.2	1.5	P
Nitrogen Oxides (ppmdv @ 7% O ₂)	152	166	170	180	90.4	P
Nitrogen Oxides (lb/hr)	50.6	49.1	49.4	58	85.7	P
Carbon Monoxide (ppmdv @ 7% O ₂)	10.9	18.7	13.1	45	31.6	P
Carbon Monoxide (lb/hr)	2.20	3.37	2.32	8.04	32.7	P
Total Hydrocarbons (lb/hr)	0.270	0.242	0.233	2.76	9.0	P
Sulfuric Acid Mist (lb/hr) ³	0.244	0.183	0.288	1.69	14.1	P
Hydrogen Fluoride (lb/hr)	0.029	0.019	0.019	0.165	13.5	P
Polychlorinated Dibenzo-p-Dioxins and Furans						
(ng/dscm @ 7% O ₂) - Total	2.50	1.41	0.716	30	5.1	P
(ug/dscm @ 7% O ₂) - NY TEFs	2.38E-05	2.26E-05	1.36E-05	0.0004	5.0	P
(lb/hr) - NY TEFs	3.60E-09	3.60E-09	1.97E-09	1.29E-07	2.4	P
Hydrogen Chloride (ppmdv @ 7% O ₂)	2.79	2.13	4.15	25	12.1	P
Hydrogen Chloride (lb/hr)	0.654	0.512	0.883	5.24	13.0	P
HCl Removal Efficiency (%)	99.6	99.4	99.7	95 (min)		P
Ammonia (ppmdv @ 7% O ₂)	3.46	6.71	2.79	50	8.6	P
Ammonia (lb/hr)	0.378	0.753	0.282	4.88	9.7	P
Arsenic (lb/hr)	7.39E-05	8.37E-05	8.65E-05	7.80E-04	10.4	P
Beryllium (lb/hr)	4.87E-06	4.77E-06	4.66E-06	1.15E-05	41.4	P
Cadmium (mg/dscm)	0.000603	0.000909	0.000888	0.040	2.0	P
Cadmium (lb/hr)	9.23E-05	1.45E-04	1.29E-04	1.90E-03	6.4	P
Chromium (lb/hr)	2.38E-04	2.41E-04	3.50E-04	1.93E-03	14.3	P
Copper (lb/hr)	3.07E-04	4.96E-04	6.17E-04	4.00E-03	11.8	P
Lead (mg/dscm)	0.0106	0.0183	0.0182	0.44	3.6	P
Lead (lb/hr)	1.63E-03	2.91E-03	2.65E-03	3.81E-02	6.3	P
Manganese (lb/hr)	3.36E-04	2.89E-04	6.69E-04	2.30E-02	1.9	P
Nickel (lb/hr)	3.64E-04	3.38E-04	5.99E-04	4.00E-03	10.8	P
Vanadium (lb/hr)	4.87E-05	4.77E-05	4.66E-05	6.00E-04	7.9	P
Zinc (lb/hr)	1.01E-02	1.20E-02	1.65E-02	1.88E-02	68.4	P
Mercury (ug/dscm @ 7% O ₂)	2.33	6.96	3.28	28	15.0	P
Mercury (lb/hr)	0.000358	0.00111	0.000477	0.012	5.4	P
Mercury Removal Efficiency (%)	98.2	97.8	97.7	85 (min)		P
PM ₁₀ (gr/dscf @ 7% O ₂)	0.000696	0.000758	0.000408	0.010	6.2	P
PM ₁₀ (lb/hr)	0.258	0.305	0.147	3.16	7.5	P
Polychlorinated Biphenyls (PCBs)						
(ug/dscm @ 7% O ₂)	0.00729	0.00443	0.00330	0.053	9.4	P
Polycyclic Aromatic Hydrocarbons (PAHs)						
(ug/dscm @ 7% O ₂)	0.785	0.608	0.491	1.0	62.8	P
(lb/hr)	0.000120	0.0000963	0.0000703	0.00014	68.2	P
Formaldehyde (ug/dscm @ 7% O ₂)	49.1	43.7	44.9	50	91.8	P
Hexavalent Chromium (lb/hr)	0.0000204	0.0000211	0.0000206	0.0003	6.9	P

¹ Permit limits obtained from Covanta Onondaga, LP, New York State Department of Environmental

Conservation Title V Permit Number 7-3142-00028/00009, issued 1/8/2002 with Modification 1 effective date of 3/24/2003

² Calculated as the average of the three unit test runs (each unit result is an average of three replicate test runs) over the Permit limit expressed as a percent

³ Testing for H₂SO₄ not required by Permit unless specifically requested by NYSDEC; testing was performed although not requested

Units:

gr/dscf = grains per dry standard cubic foot

all volumetric test results are reported at 7% oxygen (O₂)

ppmdv = parts per million dry volume

min = minimum permit limit percentage

lb/hr = pounds per hour

E = test result expressed in scientific notation (base 10)

ng/dscm = nanograms (billionth's of a gram) per dry standard cubic meter

ug/dscm = micrograms (millionth's of a gram) per dry standard cubic meter

mg/dscm = milligrams (thousandth's of a gram) per dry standard cubic meter