

## 2016 Air Emissions Testing FAQs

**Q: What is the purpose of annual air emissions “stack” testing?**

**A: Stack testing is an important tool that measures the amount of regulated pollutants being emitted from a facility.** Stack testing consists of a series of sampling events, in which a probe is inserted into the stack to collect a representative sample of the gases released, over a defined amount of time. Sampling and laboratory analysis must be conducted in accordance with New York State Department of Environmental Conservation (NYSDEC) and United States Environmental Protection Agency (USEPA) protocols. **NYSDEC oversees, and is generally onsite during stack testing at the WTE Facility.**

**Q: How do the 2016 stack test results look?**

**A: The results from the 2016 stack testing indicate that the Facility is operating acceptably and that the air pollution control devices are functioning properly.** As shown by the following graph, many of the tested constituents were considerably below the permit limit.

**Q: Does the Facility conduct any other air emissions testing besides the annual stack testing?**

**A: Yes. The Facility has a continuous emission monitoring system (CEMS) that measures combustion efficiency, air pollution equipment performance and stack emissions.** The CEMS monitors carbon monoxide, carbon dioxide, oxygen, sulfur dioxide, and nitrogen oxides (NOx) as well as opacity and combustion temperatures.

**Q: What is the status of the WTE Facility’s Air (Title V) Permit?**

**A: Pursuant to 621.11(L) of the Uniform Procedures Act and Section 401(2) of the State Administrative Procedure Act, an existing permit does not expire until the renewal process is complete. A complete and timely permit renewal application was submitted to NYSDEC.** The Facility continues to operate under the NYSDEC air permit that was effective August 8, 2011 through August 7, 2016. The permit can be **accessed on NYSDEC’s website** at the following webpage: [www.tinyurl.com/WTEpermit](http://www.tinyurl.com/WTEpermit).

**Q: Who can I contact for more information?**

**A: For more detailed information on the test results please contact OCRRA’s Agency Engineer, Amy Miller, at 315.295.0743 or [amiller@ocrra.org](mailto:amiller@ocrra.org). For additional questions of OCRRA’s Public Information Officer, please contact Kristen Lawton at 315.295.0733 or [klawton@ocrra.org](mailto:klawton@ocrra.org).**

## 2016 ANNUAL STACK TEST RESULTS

	Constituent	Average Measured Emissions <sup>1</sup>			Permit Limit <sup>2</sup>	Pass/Fail? P/F	3-Boiler Average <sup>3</sup>	% permit limit <sup>4</sup>	
		Unit 1	Unit 2	Unit 3					
<b>TESTED ANNUALLY</b>	<b>FEDERAL</b>	Cadmium (mg/dscm @ 7% O <sub>2</sub> )	5.2E-04	5.2E-04	3.8E-04	3.5E-02	P	4.7E-04	1.3%
		Cadmium (lb/hr)	8.1E-05	8.3E-05	5.5E-05	1.9E-03	P	7.3E-05	3.8%
		Carbon Monoxide (lb/hr)	1.21E+00	7.16E-01	1.4E+00	8.04E+00	P	1.12E+00	14.0%
		Dioxins/Furans (ng/dscm @ 7% O <sub>2</sub> )	8.0E-01	6.1E-01	1.4E+00	3.0E+01	P	9.5E-01	3.2%
		Hydrogen Chloride (ppmdv @ 7% O <sub>2</sub> )	2.3E+00	1.7E+00	2.1E+00	2.5E+01	P	2.0E+00	8.1%
		Hydrogen Chloride (lb/hr)	5.49E-01	4.14E-01	4.58E-01	5.24E+00	P	4.74E-01	9.0%
		Hydrogen Chloride Removal Efficiency (%)	99.7	99.7	99.6	>=95	P	99.7	-
		Lead (mg/dscm @ 7% O <sub>2</sub> )	4.70E-03	4.23E-03	3.75E-03	4.00E-01	P	4.23E-03	1.1%
		Lead (lb/hr)	7.33E-04	6.77E-04	5.44E-04	3.81E-02	P	6.51E-04	1.7%
		Mercury (lb/hr)	< 7E-05	< 7E-05	< 7E-05	4E-03	P	7E-05	1.7%
		Nitrogen Oxides (lb/hr)	4.6E+01	5.02E+01	4.4E+01	5.8E+01	P	4.7E+01	80.6%
		Particulates (gr/dscf @ 7% O <sub>2</sub> )	5.0E-04	4.8E-04	1.6E-04	1.0E-02	P	3.8E-04	3.8%
		PM <sub>10</sub> (gr/dscf @ 7% O <sub>2</sub> )	5.4E-04	6.3E-04	7.0E-04	1.0E-02	P	6.2E-04	6.2%
		PM <sub>10</sub> (lb/hr)	1.85E-01	2.13E-01	2.25E-01	3.16E+00	P	2.08E-01	6.6%
		Sulfur Dioxide (lb/hr)	3.81E-01	9.58E-01	1.57E-01	1.62E+01	P	4.99E-01	3.1%
<b>STATE</b>	Ammonia (ppmdv @ 7% O <sub>2</sub> )	3.6E+00	1.4E+00	4.4E+00	5.0E+01	P	3.1E+00	6.2%	
	Ammonia (lb/hr)	3.90E-01	1.60E-01	4.46E-01	4.88E+00	P	3.32E-01	6.8%	
	Dioxins/Furans-2,3,7,8 TCDD TEQ (ng/dscm @ 7% O <sub>2</sub> )	1E-02	6E-03	2E-02	4E-01	P	1E-02	2.9%	
	Dioxins/Furans-2,3,7,8 TCDD TEQ (lb/hr)	1.53E-09	9.25E-10	2.68E-09	1.29E-07	P	1.71E-09	1.3%	
	Mercury (µg/dscm @ 7% O <sub>2</sub> )	< 4.5E-01	< 4.4E-01	< 4.8E-01	2.8E+01	P	4.6E-01	1.6%	
	Mercury Removal Efficiency (%)	> 99.0	> 99.0	> 98.8	>=85	P	98.9	-	
	PAH (µg/dscm @ 7% O <sub>2</sub> )	< 1.2E-01	< 1.1E-01	< 1.4E-01	1.0E+00	P	1.2E-01	12.2%	
	Zinc (lb/hr)	4.18E-03	3.67E-03	5.36E-03	6.45E-02	P	4.40E-03	6.8%	

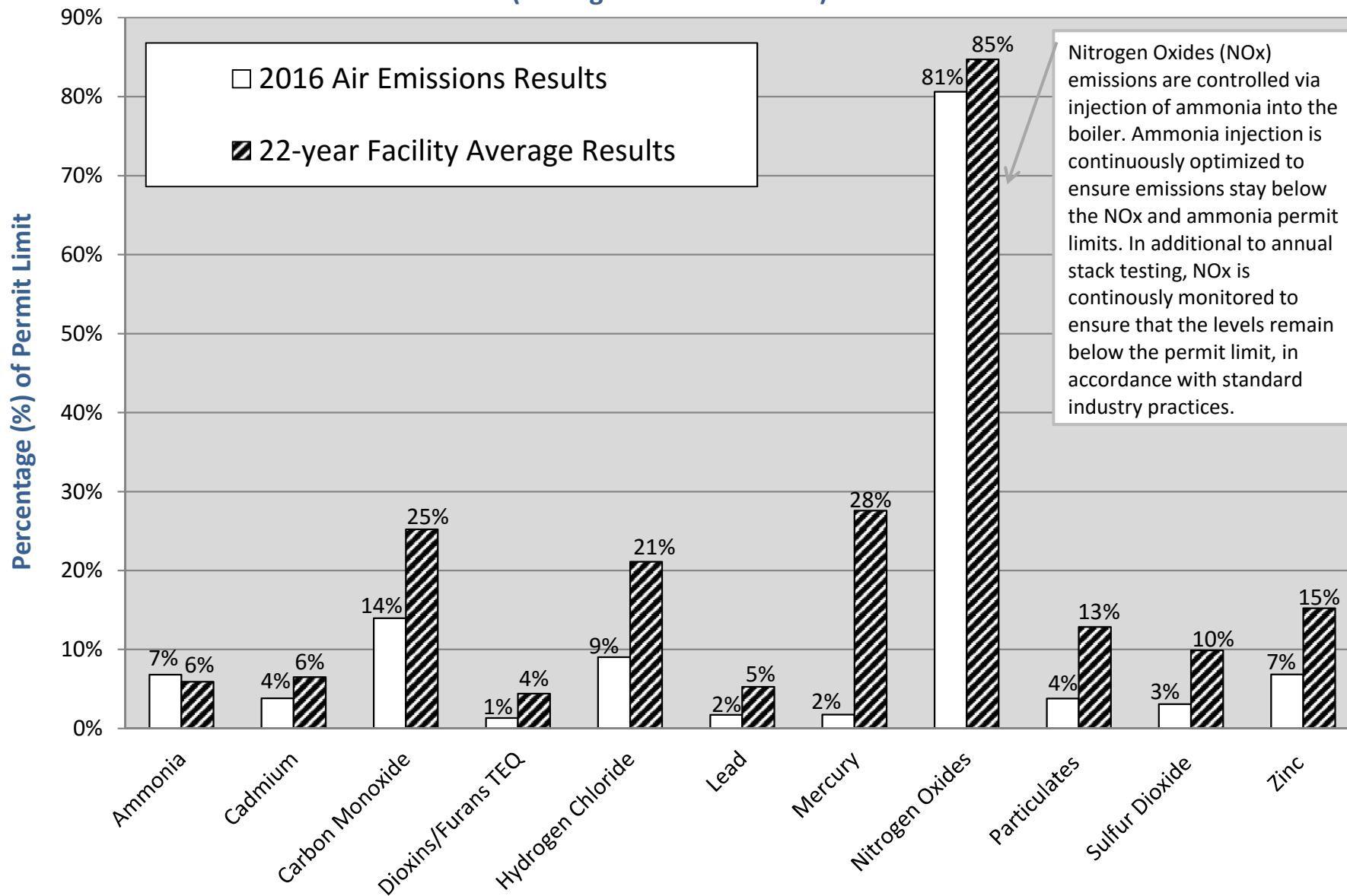
**NOTES:**

- <sup>1</sup> Based on three test runs; used for compliance with permit limit.
- <sup>2</sup> NYSDEC Title V Permit #7-3142-00028
- <sup>3</sup> Average provided for informational purposes only; not used for compliance.
- <sup>4</sup> Based on 3-Boiler Average; informational only; not used for compliance.

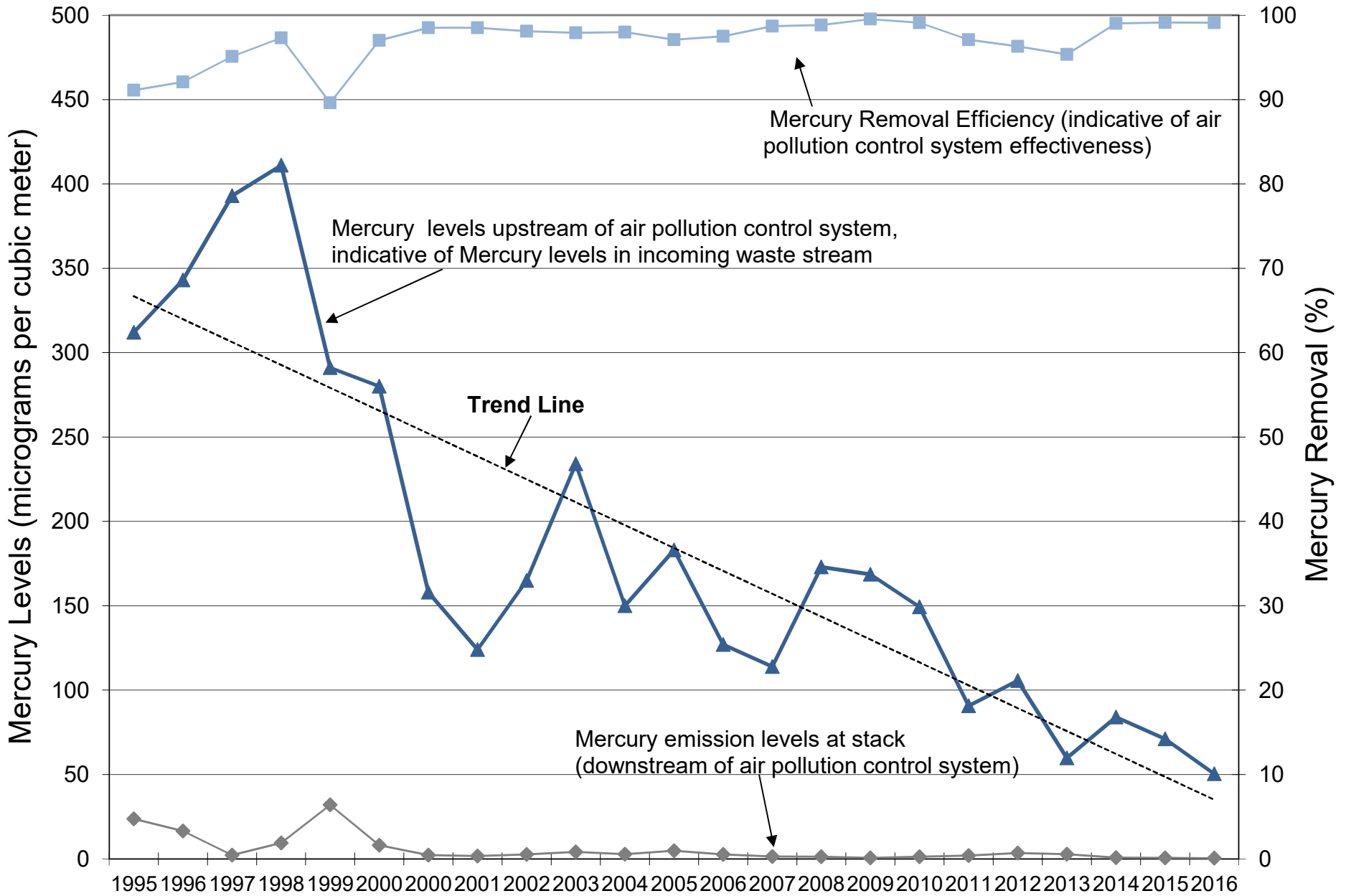
**UNITS:**

- gr/dscf = grains per dry standard cubic foot
- ppmdv = parts per million dry volume
- lb/hr = pounds per hour
- dscm = dry standard cubic meter
- @ 7% O<sub>2</sub> = concentration corrected to 7% oxygen
- ng = nanograms
- µg = micrograms
- mg = milligrams

## Waste-to-Energy Facility Air Emissions as a Percentage of the Facility Permit Limits (Average of 3 Boiler Units)



# Facility Mercury Emissions & Air Pollution Control System Effectiveness



# 2016 Ash Residue Testing FAQs

**Q: What is the purpose of the semi-annual ash testing and how do the 2016 results look?**

A: A representative sample of combined bottom and fly ash residue is collected according to NYSDEC protocols. This sample is then analyzed by an independent laboratory for leachable metals, according to EPA’s Toxicity Characteristic Leaching Procedure (TCLP). TCLP analysis simulates landfill conditions (the final disposal site for the ash) and determines whether the ash residue exhibits hazardous characteristics. **Over the life of the facility (including the most recent 2016 results), TCLP analysis has always indicated that the ash residue is non-hazardous.**

**Q: Who can I contact for more information?**

A: For more detailed information on the test results please contact OCRRA’s Agency Engineer, Amy Miller, at 315.295.0743 or amiller@ocrra.org. For additional questions of OCRRA’s Public Information Officer, please contact Kristen Lawton at 315.295.0733 or klawton@ocrra.org.

<b>2016 ASH RESIDUE CHARACTERIZATION TEST RESULTS</b>			
<b>Semi-Annual Test Results - <a href="#">April 2016</a></b>			
<i>Constituent</i>	<i>Test Result</i>	<i>Permit Limit</i>	<i>Pass or Fail</i>
Cadmium	0.05 mg/L	1 mg/L	Pass
Lead	0.25 mg/L	5 mg/L	Pass
<b>Semi-Annual Test Results - <a href="#">September 2016</a></b>			
<i>Constituent</i>	<i>Test Result</i>	<i>Permit Limit</i>	<i>Pass or Fail</i>
Cadmium	0.05 mg/L	1 mg/L	Pass
Lead	0.25 mg/L	5 mg/L	Pass
<b><u>CONCLUSION</u></b>			
<i>Ash residue does NOT exhibit a hazardous characteristic. As such, it should continue to be managed as a non-hazardous solid waste.</i>			