

2025 Annual Report

The 2025 Annual Report was sent to the Ministry of Environment and Climate Change Strategy on March 10, 2026.



Metro Vancouver - Waste-to-Energy Facility

CONTINUOUS EMISSION MONITORING SYSTEM

2025 Annual Emission Report

1. ANNUAL SUMMARY REPORT

Parameter	Limit (mg/m ³)	Compliance Period	Maximum Measurement (mg/m ³)		
			Unit 1	Unit 2	Unit 3
Carbon Monoxide (CO)	50	24 hr	49.1	47.7	42.2
Sulphur Dioxide (SO ₂)	200	24 hr ⁽¹⁾	157.4	180.0	150.8
Nitrogen Oxides (NO _x)	190	24 hr	150.2	157.7	167.8
			Annual Average (mg/m ³)		
			Unit 1	Unit 2	Unit 3
Opacity			0.6	0.8	0.8
Carbon Monoxide (CO)			26.2	28.2	26.7
Sulphur Dioxide (SO ₂)			73.2	75.1	64.5
Nitrogen Oxides (NO _x)			129.8	129.3	134.2

Interim Discharge Limits will apply until and including the following dates, at which point the Discharge Limits and Response Limits will apply:

a. HCl – March 3, 2028

b. SO₂ – March 3, 2028

2. ANNUAL EXCEEDANCE REPORT

2.a. Discharge Limit Exceedances

Unit	Compliance Parameter	Discharge Limit (mg/dscm)	Date	Exceedance Level

2.b. 30 Minute Response Limit Exceedances Summary

Carbon Monoxide (hours)

Total Hydrocarbons

	Unit 1	Unit 2	Unit 3		Unit 1	Unit 2	Unit 3
January	7	6.5	0.5	January			
February	6	1.5	3.5	February			
March	6	2.5	3	March			
April	3	6	5	April			
May	1	6.5	5.5	May			
June	2.5	3.5	9	June			
July	2.5	8.5	7.5	July			
August	4.5	8.5	5.5	August			
September	2	4	5.5	September			
October	2	3	2	October			
November	3.5	5	9	November			
December	2.5	4.5	2	December			
Total	42.5	60	58	Total	0	0	0

Nitrous Oxides

Opacity

	Unit 1	Unit 2	Unit 3		Unit 1	Unit 2	Unit 3
January				January			
February				February			
March				March			
April				April			
May				May			0.5
June				June	0.5		
July				July		0.5	
August				August			
September				September			
October				October			
November				November			
December				December			
Total	0	0	0	Total	0.5	0.5	0.5

2.c. Transient Conditions

Gas Burners unavailable during shutdown

Unit	Duration	Date	Time

Gas Burners unavailable during shutdown and furnace temperature average below 800C

Unit	Duration	Date	Time
#1	6 min	22-Apr-25	10:00-10:06
#2	1 hr	3-Nov-25	8:00-8:59

3. ANALYZER AVAILABILITY

Analyzer	Required Availability (% hours per annum)	Averaging Period	Annual Availability (%)		
			Unit 1	Unit 2	Unit 3
Opacity	95	Hour	100	100	100
Oxygen	95	Hour	98	98	98
Carbon Monoxide (CO)	95	Hour	98	98	98
Sulphur Dioxide (SO ₂)	95	Hour	98	98	98
Nitrogen Oxides (NO _x)	95	Hour	98	98	98

4. ANNUAL MANUAL STACK TESTING SUMMARY

Manual Stack Tests:	Units	Discharge Regulatory Limit	Maximum Value		
			Unit 1	Unit 2	Unit 3
Particulate Matter	mg/dscm	9	1.3	3.6	1.2
HF	mg/dscm	1	0.13	0.11	0.12
Hg	ug/dscm	20	0.10	0.49	0.12
Cd	ug/dscm	7	0.25	0.30	0.17
Sum of Lead (Pb), Arsenic (As), Chromium (Cr)	ug/dscm	64	4.9	10.7	12.5
Trace Organics Tests:					Unit 1
PCDD/PCDF	ng/dscm	0.08			0.001
Chlorophenols	ug/dscm	1			0.002
Chlorobenzenes	ug/dscm	1			0.033
PAH's	ug/dscm	5			0.135
PCB	ug/dscm	1			0.008
Manual Stack Tests:	Units		Annual Average		
			Unit 1	Unit 2	Unit 3
Particulate Matter	mg/dscm		1.0	1.6	0.7
HF	mg/dscm		0.09	0.07	0.09
Hg	ug/dscm		0.07	0.17	0.08
Cd	ug/dscm		0.15	0.21	0.12
Sum of Lead (Pb), Arsenic (As), Chromium (Cr)	ug/dscm		2.8	6.4	6.1

5. SHUTDOWN REPORT

Reason	Hours		
	Unit 1	Unit 2	Unit 3
Annual Scheduled Maintenance Outages	409	403	398
Unplanned Maintenance Outages	440	285	341
Waste Quality	3	10	8

6. FACILITY BYPASS AND EMERGENCY/SPILL EVENT REPORT

Date/Time	Duration	Cause	Action Taken

7. OVERVIEW OF PLANT PERFORMANCE AND OPERATIONAL INFORMATION

Summaries/interpretation of compliance and complaints information	2 transient condition exceedances reported in section 2. No other compliance issues reported. A neighbouring property owner brought forward concerns that material accumulating on his warehouse roof was resulting from the WTEF. Metro Vancouver has been meeting with the person and commissioned a consulting study to examine the issue. The final report will be ready by mid-2026 and will be shared with the Ministry of Environment and Parks.		
Status of Operations and Maintenance of Various Equipment	Scheduled outages were completed on all three boilers. The turbogenerator ran with an annual availability of 99.06%. There were a total of 8 turbogenerator outages resulting in 82.75 hours offline.		
Incidences of Emergencies and Response Measures Implemented	No incidents reported.		
Evaluation of monitoring programs	All monitoring programs were completed as per the Operational Certificate. Manual stack testing was completed on February 10-13, 2025; June 3-13, 2025, July 14-17, 2025, July 30-August 1, 2025 (semi-volatile organics) and November 17-20, 2025.		
Bottom ash and fly ash disposal method	Both bottom and fly ash are treated with a patented system used throughout the industry to inhibit metals leaching. Bottom ash was disposed at the Vancouver Landfill. Fly ash was disposed at the Columbia Ridge Landfill and Recycling Center located in Arlington, Oregon. Prior to hauling, each fly ash load is tested by an independent laboratory to confirm the material meets disposal criteria. Three loads did not meet the criteria for disposal and were reprocessed on site. The failed loads resulted from an inconsistent fly ash flow which impacted the fly ash to phosphoric acid mixing ratio. The remaining fly ash loads were released for disposal.		
Overview of Plant Performance	Plant Availability	%	85.4%
	Waste Received	Tonnes	204,481
	Waste Processed	Tonnes	209,038
	Energy Generated	MWh	132,697
	Natural Gas Consumed	GJ	150,816
	Bottom Ash	Tonnes	31,782
	Fly Ash	Tonnes	7,382
	Ferrous Metal	Tonnes	4,243
	Non-Ferrous Metal	Tonnes	241
Waste Received	Municipal Garbage	Tonnes	189,005
	International Airline Waste	Tonnes	3,411
	International Marine Waste	Tonnes	2,544
	Police Loads	Tonnes	87.9
	Pharmaceuticals	Tonnes	123
	Pocket Coil Mattresses	Tonnes	0
	Special Handle Waste	Tonnes	2,405
	Wastewater Treatment Plant Residuals	Tonnes	6,858
	Out of Region Waste	Tonnes	15.1
	Toxic & Noxious Weeds	Tonnes	29.4

Summary of operation; performance, and maintenance of emissions control devices

CEMS Calibration Data	Date Calibrated	Description of Calibration
Opacity	Daily	RATA tests on Units 1, 2, and 3 were completed August 19-21, 2025. All parameters were within the required tolerance. Analysers are calibrated daily against a zero value and a known reference value.
Oxygen	Daily	
CO	Daily	
SO2	Daily	
NOx	Daily	