

Monthly Operating Reports

April 2025

The following April 2025 operating report was sent to the Ministry of Environment and Parks on June 13, 2025.

Metro Vancouver - Waste-to-Energy Facility CONTINUOUS EMISSION MONITORING SYSTEM

April 2025

1. Monthly Summary Report

Parameter	Compliance Limit (mg/dscm)	Compliance Period	Maximum Measurement (mg/dscm)		
			Unit 1	Unit 2	Unit 3
CO	50	24 hr	36.8	36.6	41.5
SO ₂	200	24 hr	130.8	180.0	150.8
NOx	190	24 hr	144.2	141.2	145.0
THC	10	24 hr	0.52	0.64	0.51
			Monthly Average (mg/dscm)		
			Unit 1	Unit 2	Unit 3
Opacity (%)			0.60	1.20	1.01
CO			27.8	31.0	30.3
THC			0.05	0.45	0.25
SO ₂			83.1	106.6	91.9
NOx			129.0	128.1	132.7

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. Monthly Exceedance Report

2.a. Discharge Limit Exceedances

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

2.b. Response Limit Exceedances

Compliance Parameter: Carbon Monoxide

Response Limit: 100 mg/dscm 1/2 hour average

Unit No. 1

Date / Time	Duration	Exceedance (mg/dscm)	Action Taken
2-Apr 22:30	30 min	127.0	Started gas burners, adjusted airflow, modified feed rate.
4-Apr 07:00	30 min	131.5	Adjusted airflow.
8-Apr 16:30	30 min	110.7	Feed chute hang-up. Started gas burners, adjusted airflow, modified feed rate.
14-Apr 18:30	30 min	119.2	Started gas burners, adjusted airflow.
25-Apr 11:30	30 min	132.0	Started gas burners, adjusted airflow.
28-Apr 20:00	60 min	255.8	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate, checked instrumentation.
30-Apr 08:00	30 min	231.9	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate, checked instrumentation.

Compliance Parameter: Carbon Monoxide
Response Limit: 100 mg/dscm 1/2 hour average
Unit No. 2

Date / Time	Duration	Exceedance (mg/dscm)	Action Taken
3-Apr 09:00	30 min	107.3	Started gas burners, adjusted airflow, modified feed rate, checked instrumentation.
6-Apr 09:00	30 min	145.8	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
7-Apr 05:00	30 min	106.6	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
12-Apr 15:30	30 min	149.5	Started gas burners, adjusted airflow, modified feed rate.
13-Apr 06:30	30 min	131.5	Volatile fuel. Started gas burners, adjusted airflow.
13-Apr 08:30	30 min	104.3	Poor refuse quality. Started gas burners, adjusted airflow.
21-Apr 06:00	30 min	201.1	No action required
22-Apr 05:00	30 min	169.5	Poor refuse quality. Adjusted airflow, modified feed rate, checked instrumentation.
23-Apr 07:00	30 min	166.9	Started gas burners, adjusted airflow.
24-Apr 13:30	30 min	108.8	Started gas burners, adjusted airflow, modified feed rate.
28-Apr 06:30	30 min	102.7	Feed chute hang up. Started gas burners, modified feed rate.
28-Apr 08:30	30 min	129.5	Started gas burners, adjusted airflow.
30-Apr 09:00	30 min	152.2	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate, checked instrumentation.

Compliance Parameter: Carbon Monoxide
Response Limit: 100 mg/dscm 1/2 hour average
Unit No. 3

Date / Time	Duration	Exceedance (mg/dscm)	Action Taken
2-Apr 09:30	30 min	172.8	Feed chute hang up. Started gas burners, adjusted airflow, modified feed rate.
5-Apr 21:00	30 min	128.5	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
7-Apr 18:00	30 min	122.3	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
15-Apr 07:30	30 min	122.7	No action required.
16-Apr 12:30	30 min	141.4	Started gas burners, adjusted airflow.
17-Apr 13:00	30 min	133.7	Volatile fuel. Adjusted airflow, modified feed rate.
20-Apr 06:30	30 min	100.5	Started gas burners, adjusted airflow, modified feed rate.
24-Apr 07:30	30 min	168.6	Feed chute hang up. Started gas burners, adjusted airflow, modified feed rate.
24-Apr 13:00	30 min	212.1	Started gas burners, adjusted airflow, modified feed rate.
27-Apr 15:30	30 min	123.9	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
28-Apr 11:00	30 min	123.4	Started gas burners, adjusted airflow, modified feed rate, checked instrumentation.
29-Apr 01:30	30 min	100.1	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.

2.c. Transient Conditions

Furnace temperature average below 800C

Unit	Duration	Date	Time	
1	6 minutes	22-Apr-25	10:00-10:06	
Cause				
Auxiliary burners on unit 1 were unavailable to maintain the secondary combustion zone temperature during boiler shutdown.				
Unit 1 experienced a tube leak on the front waterwall, resulting in an abundant amount of water entering the furnace. The fans were restarted and the feed chute closed. The boiler was taken offline at 2025-22-04 10:06 to repair the tube leak.				
Action Taken to Restore Steady State Conditions				
Tube leak was repaired and the boiler brought back online 2025-05-27 9:00				
Remedial Action Planned and/or Taken				

3. CEMS Availability

Analyser	Required Availability (% hours per quarter)	Averaging Period	Monthly Availability		
			Unit 1	Unit 2	Unit 3
Opacity	90	Hour	100	100	100
Oxygen	90	Hour	99	99	99
CO	90	Hour	99	99	99
SO ₂	90	Hour	99	99	99
NOx	90	Hour	99	99	99
THC	90	Hour	99	99	99
Stack Flow	90	Hour	100	100	100

4. Shutdown Report

Unit 1

Duration in Hours	Reason	Date
0.63	Refuse crane outage	April 21
57.40	Boiler wash	April 22-24
2.17	Grate bar failure	April 26
1.50	Refuse crane outage	April 29
1.50	Refuse crane outage	April 30
4.00	Grate bar failure	April 30

Unit 2

Duration in Hours	Reason	Date
59.33	Boiler wash	April 15-17
0.63	Refuse crane failure	April 21
36.50	Grate bar failure	April 25-26
1.25	Refuse crane outage	April 29
1.50	Refuse crane outage	April 30

Unit 3

Duration in Hours	Reason	Date
78.08	Boiler wash	April 8-11
0.97	Refuse crane outage	April 21
0.91	Refuse crane outage	April 29
1.50	Refuse crane outage	April 30

5. Facility Bypass and Emergency/spill Event Report

Date/Time	Cause	Duration
	Action Taken	

6. Other Data

		UNIT 1	UNIT 2	UNIT 3
Waste Received	tonnes	19,795		
Waste Processed	tonnes/day	225	209	217
Maximum Waste Processed	tonnes/day	265	266	266
		Units 1, 2, and 3		
Natural Gas Consumed	m ³ /day	8,698		
	m ³ /month	260,945		
Fly ash disposed	tonnes	733		
Bottom ash disposed	tonnes	2,877		

7. Complaints and Responses

Date/Time	Complaint	Action Taken

April 2025 - Monthly CEMS Data

	Boiler #1								Boiler #2								Boiler #3							
	Stack	O ₂	SO ₂	NO _x	CO	THC	Opacity*	Furnace	Stack	O ₂	SO ₂	NO _x	CO	THC	Opacity	Furnace	Stack	O ₂	SO ₂	NO _x	CO	THC	Opacity	Furnace
Date	Temp	(%)	(mg/m ³)	(mg/m ³)	(mg/m ³)	(mg/m ³)	(%)	Temp	Temp	(%)	(mg/m ³)	(mg/m ³)	(mg/m ³)	(mg/m ³)	(%)	Temp	Temp	(%)	(mg/m ³)	(mg/m ³)	(mg/m ³)	(mg/m ³)	(%)	Temp
4/1/25	157	10.6	130.8	126.6	32.7	0.01	1.37	901	152	10.2	119.3	127.7	30	0.45	0.92	913	154	10.1	72.3	128.6	24.6	0.25	2.13	882
4/2/25	154.9	7.8	65.7	95.8	29.2	0.10	0.92	941	152	10	90.7	127.5	26.2	0.47	1.27	920	154	10.1	45.2	130.6	26.3	0.26	2.57	884
4/3/25	157	9.9	69.6	126	28.7	0.00	0.38	920	153	9.9	78.6	124.6	29.6	0.45	1.66	932	154	10.2	35.5	131.5	19.2	0.37	1.92	875
4/4/25	156.9	10.4	78.1	129.3	23.5	0.00	0.39	918	153	10.4	86.8	125.3	31.8	0.49	2.07	913	154	10.4	53.2	129	21.6	0.30	1.40	881
4/5/25	153	10.1	113.8	126.3	28.5	0.51	2.45	932	153	10.1	113.8	126.3	28.5	0.51	2.45	932	155	10.4	64.4	129.9	22.9	0.36	1.85	884
4/6/25	153	10.3	107.2	126.9	35	0.52	2.73	914	153	10.3	107.2	126.9	35	0.52	2.73	914	154	10.1	63.1	127.6	20.5	0.31	1.79	889
4/7/25	154.7	10.5	60.3	129.8	30.8	0.00	1.61	912	151	10.5	70.5	127.8	30.4	0.64	1.54	899	154	10.2	26.3	129.1	23.3	0.39	1.59	877
4/8/25	154.3	10.3	82.4	127.1	35.9	0.00	1.11	911	151	11.1	84.4	125.8	26.6	0.51	0.94	880								
4/9/25	155.5	10.5	84.5	131.5	30.5	0.00	0.17	919	151	10.6	87.7	127.5	35	0.60	1.16	901								
4/10/25	155.5	10.5	96.1	131	34.5	0.00	0.22	929	151	10.6	94.2	126.4	28.9	0.62	1.24	907								
4/11/25	155	10.3	122.9	128.9	27.3	0.00	0.26	942	151	10.7	106	127	28.3	0.55	1.39	908								
4/12/25	155.2	10.3	113	129.3	23.4	0.00	0.32	942	150	11.2	105.2	125.5	32.9	0.59	1.53	898	152	9.8	150.8	137.7	26.6	0.20	1.70	866
4/13/25	156.3	10.9	70.5	128.2	24.1	0.00	0.38	888	150	11.1	88.8	124	32.2	0.56	1.97	881	154	10.1	126.4	131.5	28.4	0.13	2.15	883
4/14/25	156.4	10.9	57	131.1	23.7	0.00	0.36	922	150	11.1	76.7	122.9	24.1	0.52	1.54	893	154	10.2	114.2	133.4	31.6	0.51	0.90	904
4/15/25	156.8	10.1	70	130.4	26.5	0.00	0.32	961	149	11	98.7	127.4	36.6	0.53	0.68	905	154	10.3	111.1	135.2	34.9	0.32	0.33	886
4/16/25	157	10.4	94	137	24.2	0.00	0.33	935									150	10.2	133.6	130	30	0.31	0.52	903
4/17/25	156	10.1	81.9	129.3	22.5	0.01	0.31	939									151	10.1	117.2	131.9	34.8	0.26	0.54	908
4/18/25	157	10.6	54.3	128.4	28.8	0.00	0.26	927									153	10	93	141	32.9	0.14	0.56	891
4/19/25	157	9.7	84.9	127	23.2	0.05	0.24	951	151	9.7	138.6	129.9	31.4	0.24	0.50	897	154	10.1	114.7	134.4	36.2	0.14	0.59	902
4/20/25	157	10.3	116.9	126	25.6	0.01	0.24	923	150	10	154.2	129	27.9	0.27	0.70	876	154	10.3	144.5	130.8	34.5	0.12	0.57	880
4/21/25	157	10.2	46.6	125.3	36.8	0.01	0.23	905	151	10.1	112.1	129.6	34.7	0.45	0.71	900	154	10.1	86.3	131.4	36.3	0.16	0.52	900
4/22/25									148	10.3	180	132.8	35.6	0.44	0.73	883	155	10.3	124.3	140.2	34.5	0.23	0.54	879
4/23/25									149	10.3	128.6	130.2	31.4	0.32	0.75	888	151	9.9	110.1	133.7	27	0.12	0.51	875
4/24/25									151	10.1	113.8	129.2	33.4	0.31	0.77	910	154	10.1	90.7	130.5	41.5	0.19	0.53	873
4/25/25	155	10.4	68.6	139	26.4	0.01	0.26	925									154	10	83.6	132.5	30.3	0.22	0.50	879
4/26/25	155	10.6	87.4	133.5	25.3	0.01	0.22	918									154	10.5	101.6	130.6	29.7	0.33	0.50	880
4/27/25	156	10.1	82.6	131.6	25.6	0.01	0.27	946	152	9.9	123.5	133.6	30	0.23	0.70	921	154	10.1	89.5	132.2	34.4	0.27	0.52	904
4/28/25	156	10.2	57.3	132.2	28.7	0.05	0.27	944	151	10.6	85.8	126.1	34.1	0.33	0.69	886	154	10.7	59.6	130.7	41.2	0.23	0.56	885
4/29/25	154	10.1	96.6	130.7	20.1	0.00	0.28	958	153	9.7	130.4	127.1	27.5	0.28	0.66	924	153	10.1	112.2	130.9	33	0.29	0.51	902
4/30/25	155	10.3	51.5	144.2	28.4	0.07	0.29	909	153	10	89.9	141.2	31.8	0.35	0.68	902	154	10.5	65.7	145	31.7	0.17	0.53	873
Average	156	10.2	83.1	129.0	27.8	0.05	0.60	927	151.2	10.4	106.6	128.1	31.0	0.45	1.20	903.3	153.5	10.2	91.9	132.7	30.3	0.25	1.01	886.3
Min	153	7.8	46.6	95.8	20.1	0.00	0.17	888	148.0	9.7	70.5	122.9	24.1	0.23	0.50	876.0	150.0	9.8	26.3	127.6	19.2	0.12	0.33	866.0
Max	157	10.9	130.8	144.2	36.8	0.52	2.73	961	153.0	11.2	180.0	141.2	36.6	0.64	2.73	932.0	155.0	10.7	150.8	145.0	41.5	0.51	2.57	908.0
St Dev	1.2	0.56	23.20	7.88	4.38	0.14	0.68	17.8	1.40	0.46	25.85	3.69	3.26	0.12	0.61	15.81	1.21	0.20	33.50	4.13	6.01	0.10	0.69	11.75

Blank days have less than 18 hours of valid data due to unit shut downs or analyzer outage/maintenance.

According to standard guidelines used by Metro Vancouver Air Quality Policy and Environment Division, a minimum of 18 hours of valid data is required to generate a valid 24hr average.

* Metro Vancouver has confirmed with Covanta that the equipment is calibrated on a daily basis, and is within range.