

## Monthly Operating Reports

November 2025

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The following November 2025 operating report was sent to the Ministry of Environment and Parks on January 14, 2026.

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

November 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	36.0	32.7	32.0
SO <sub>2</sub>	200	24 hr	75.6	102.5	95.8
NOx	190	24 hr	132.1	142.6	146.3
THC	10	24 hr	0.09	0.47	0.45
			Monthly Average (mg/dscm)		
			Unit 1	Unit 2	Unit 3
Opacity (%)			0.30	0.60	0.99
CO			25.2	24.0	24.3
THC			0.02	0.28	0.10
SO <sub>2</sub>			54.2	68.8	58.6
NOx			128.0	128.9	133.4

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. SO<sub>2</sub> – 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
3-Nov 11:30	30 min	109.3	Started gas burners, adjusted airflow, modified feed rate.
6-Nov 08:00	30 min	123.0	Started gas burners, adjusted airflow.
7-Nov 20:30	30 min	107.2	Feed chute hang up. Started gas burners, adjusted airflow, modified feed rate.
12-Nov 17:00	30 min	143.9	Poor refuse quality. Started gas burners, adjusted airflow, modified feed rate.
13-Nov 10:30	30 min	115.5	Started gas burners, adjusted airflow, modified feed rate.
13-Nov 19:30	30 min	116.6	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
19-Nov 09:00	30 min	178.9	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.

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

Date / Time	Duration	Exceedance (mg/dscm)	Action Taken
4-Nov 06:30	30 min	111.9	Feed chute hang up. Started gas burners, adjusted airflow, modified feed rate.
5-Nov 06:00	30 min	191.3	Started gas burners, adjusted airflow, modified feed rate.
8-Nov 13:30	30 min	125.5	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
14-Nov 04:30	30 min	125.4	Poor refuse quality. Started gas burners, adjusted airflow, modified feed rate.
16-Nov 16:30	30 min	112.1	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
17-Nov 06:30	30 min	154.8	Poor refuse quality. Started gas burners, adjusted airflow, modified feed rate.
19-Nov 09:00	60 min	124.9	Feed chute hang up. Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
26-Nov 08:00	30 min	228.4	Started gas burners, adjusted airflow, modified feed rate.
27-Nov 12:00	30 min	206.0	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.

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

Date / Time	Duration	Exceedance (mg/dscm)	Action Taken
1-Nov 04:00	30 min	108.5	Poor refuse quality. Started gas burners, adjusted airflow, modified feed rate.
1-Nov 15:30	30 min	193.3	Poor refuse quality. Started gas burners, adjusted airflow, modified feed rate.
3-Nov 07:30	30 min	129.1	Started gas burners, adjusted airflow, modified feed rate.
3-Nov 12:00	30 min	132.7	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
6-Nov 17:00	30 min	114.8	Started gas burners, adjusted airflow.
6-Nov 05:00	30 min	115.2	Feed chute hang up. Started gas burners, adjusted airflow.
8-Nov 21:30	30 min	120.2	Volatile fuel. Started gas burners, adjusted airflow.
10-Nov 23:30	30 min	159.0	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
11-Nov 20:00	30 min	161.1	No action required.
14-Nov 07:00	30 min	101.7	Feed chute hang up. Started gas burners, adjusted airflow, modified feed rate.
16-Nov 09:00	60 min	106.8	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
18-Nov 06:00	30 min	141.6	Feed chute hang up. Started gas burners, adjusted airflow, modified feed rate.
18-Nov 09:00	30 min	130.8	Started gas burners, adjusted airflow, modified feed rate.
20-Nov 08:30	30 min	102.4	Started gas burners, adjusted airflow, modified feed rate.
21-Nov 16:30	30 min	109.9	Volatile fuel. Started gas burners, adjusted airflow, modified feed rate.
23-Nov 01:00	30 min	124.0	Volatile fuel. Started gas burners, adjusted airflow.
23-Nov 22:30	30 min	111.6	Feed chute hang up. Started gas burners, adjusted airflow, modified feed rate.

## 2.c. Transient Conditions

### Furnace temperature average below 800C

Unit	Duration	Date	Time	
#2	1 hr	3-Nov-25	8:00-8:59	
<b>Cause</b>				
Poor refuse quality. Furnace average temperature was 798.98C.				
<b>Action Taken to Restore Steady State Conditions</b>				
Temporary shutdown of unit, started gas burners, waited for temperature to come back into expected range. The unit was brought back online at 10:56am 3-Nov-25.				
<b>Remedial Action Planned and/or Taken</b>				
Increased focus on mixing fuel.				

## 3. CEMS Availability

Analyzer	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	97
CO	90	Hour	99	99	97
SO <sub>2</sub>	90	Hour	99	99	97
NOx	90	Hour	99	99	97
THC	90	Hour	99	99	97
Stack Flow	90	Hour	100	100	100

## 4. Shutdown Report

### Unit 1

Duration in Hours	Reason	Date
4.26	Poor refuse quality	November 2
0.76	Ash discharger maintenance	November 9
0.32	Poor refuse quality	November 14
0.65	Ash discharger maintenance	November 20
0.24	Poor refuse quality	November 22
0.23	Poor refuse quality	November 24
44.21	Grate bar repair	November 27-29

## Unit 2

Duration in Hours	Reason	Date
1.15	Poor refuse quality	November 3
0.94	Poor refuse quality	November 4
4.90	Fabric filter baghouse maintenance	November 6
71.62	Secondary economizer maintenance	November 9-12
1.62	Fabric filter baghouse maintenance	November 17
77.37	Secondary economizer	November 22-26
1.35	Underfire air trip	November 26

## Unit 3

Duration in Hours	Reason	Date
1.43	Poor refuse quality	November 8
1.39	Poor refuse quality	November 11
1.35	Ash discharger maintenance	November 17
1.38	Ash discharger maintenance	November 24
0.30	Ash discharger maintenance	November 26
0.43	Poor refuse quality	November 28
0.23	Induced draft fan trip	November 28
44.67	Second pass superheater maintenance	November 29-30

## 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	17,892		
Waste Processed	tonnes/day	176	113	114
Maximum Waste Processed	tonnes/day	274	255	252
Natural Gas Consumed	m <sup>3</sup> /day	23,515		
	m <sup>3</sup> /month	705,453		
Fly ash disposed	tonnes	704		
Bottom ash disposed	tonnes	2,561		

## 7. Complaints and Responses

Date/Time	Complaint	Action Taken

# ATTACHMENT 2

## November 2025 - Monthly CEMS Data

Date	Boiler #1								Boiler #2								Boiler #3							
	Stack Temp	O <sub>2</sub> (%)	SO <sub>2</sub> (mg/m <sup>3</sup> )	NO <sub>x</sub> (mg/m <sup>3</sup> )	CO (mg/m <sup>3</sup> )	THC (mg/m <sup>3</sup> )	Opacity (%)	Furnace Temp	Stack Temp	O <sub>2</sub> (%)	SO <sub>2</sub> (mg/m <sup>3</sup> )	NO <sub>x</sub> (mg/m <sup>3</sup> )	CO (mg/m <sup>3</sup> )	THC (mg/m <sup>3</sup> )	Opacity (%)	Furnace Temp	Stack Temp	O <sub>2</sub> (%)	SO <sub>2</sub> (mg/m <sup>3</sup> )	NO <sub>x</sub> (mg/m <sup>3</sup> )	CO (mg/m <sup>3</sup> )	THC (mg/m <sup>3</sup> )	Opacity (%)	Furnace Temp
11/1/25	152.7	9.1	72.7	125.5	27.5	0.05	0.34	912	146.5	10.0	102.3	124.3	22.4	0.26	0.36	857	150.8	9.8	72.6	125.9	20.6	0.08	0.92	872
11/2/25	152.3	9.1	68.5	126.6	18.8	0.04	0.33	916	146.6	10.4	102.5	121.2	10.8	0.27	0.38	876	152	10.1	92.9	125.7	16.1	0.06	0.97	884
11/3/25	152.8	8.9	66.3	129.8	24.3	0.02	0.26	889	150.5	10.0	83.1	125.4	20.7	0.37	0.41	872	151.5	9.5	69.4	135.7	24.3	0.11	0.98	868
11/4/25	152.8	9.3	67.9	131.2	23.1	0.02	0.32	899	151.4	10.5	78.2	127.6	18.8	0.34	0.45	866	151.3	9.6	78.8	141.2	17.6	0.03	1.02	863
11/5/25	154.6	9.1	48.4	127.9	25.2	0.02	0.30	879	149.7	10.0	65.9	123.4	29.2	0.37	0.45	874	151	9.6	52.9	133.3	28.5	0.08	0.90	867
11/6/25	152.9	9.5	45.1	124.4	25.4	0.02	0.27	871	147.6	10.6	59.1	123.5	20.1	0.32	0.71	868	151.1	9.5	55.5	125.3	26.9	0.15	0.93	881
11/7/25	153.2	9.2	43.0	126.6	25.1	0.01	0.25	866	147	10.0	58.6	128.2	24.6	0.30	0.59	871	151.3	9.7	49.3	130.0	24.0	0.06	0.95	859
11/8/25	152	9.3	37.4	126.1	15.0	0.00	0.28	878	145.6	10.0	48.7	128.2	25.3	0.44	0.61	876	152.2	9.9	42.2	132.4	20.8	0.11	0.98	856
11/9/25	152.7	8.6	75.2	125.7	21.2	0.00	0.34	865	140	9.3	59.9	125.8	20.2	0.30	0.63	888	151.5	9.8	59.6	130.7	19.0	0.02	0.97	854
11/10/25	152.2	8.7	41.6	125.7	24.9	0.04	0.25	880								154.6	9.5	46.4	127.0	28.6	0.06	0.93	851	
11/11/25	153.6	9.0	61.7	125.1	30.2	0.08	0.27	888								155	9.3	95.8	128.5	26.2	0.06	1.00	867	
11/12/25	154.6	9.3	50.0	126.4	31.5	0.06	0.29	886								149.2	9.5	61.3	130.6	23.9	0.03	1.02	871	
11/13/25	154.9	9.6	45.2	128.0	31.1	0.04	0.24	856	144.9	10.0	74.3	137.2	22.2	0.17	0.55	869	151.1	9.7	54.3	136.2	22.8	0.02	1.00	852
11/14/25	155.9	8.9	44.0	127.1	26.9	0.00	0.26	927	143.8	9.3	64.3	125.9	25.9	0.17	0.57	884	150.8	9.7	51.3	132.7	29.6	0.10	0.99	849
11/15/25	158.7	9.0	49.0	126.7	25.1	0.01	0.32	915	146.4	9.6	69.4	136.4	20.6	0.26	0.60	883	152.8	9.6	55.9	141.4	23.1	0.02	1.03	851
11/16/25	156.1	9.1	64.0	125.9	24.2	0.09	0.29	913	146.3	9.7	89.0	142.6	22.4	0.28	0.60	883	152.1	9.3	73.3	146.0	22.9	0.14	0.96	854
11/17/25	154.2	9.8	68.5	127.8	23.4	0.00	0.26	953	146.7	10.2	81.4	135.8	25.6	0.47	0.60	881	150.9	9.7	68.1	131.2	21.3	0.45	0.98	854
11/18/25	154.3	9.6	65.4	127.8	21.3	0.00	0.27	939	149.2	9.9	69.0	132.0	22.7	0.20	0.64	882	151.3	9.8	58.7	133.3	28.2	0.10	1.00	897
11/19/25	153.8	9.9	36.2	130.0	36.0	0.02	0.32	927	146.9	9.5	56.7	129.7	32.7	0.27	0.66	889	150.5	10.2	47.6	139.5	27.1	0.09	1.04	886
11/20/25	152.4	9.8	47.5	130.1	25.4	0.00	0.36	918	148.6	9.9	58.0	131.8	23.4	0.26	0.65	892	151.2	10.4	56.5	146.3	26.0	0.05	1.01	896
11/21/25	151.6	9.0	37.6	129.8	21.6	0.00	0.30	982	148.4	9.4	51.2	130.8	27.5	0.24	0.65	907	149.9	10.0	34.2	133.0	26.7	0.05	1.03	906
11/22/25	152.2	8.9	47.0	130.0	23.4	0.00	0.29	942								152.8	10.4	47.1	137.7	27.5	0.03	0.99	891	
11/23/25	153.7	8.9	61.9	130.8	21.5	0.00	0.28	975								151.2	10.0	64.5	135.9	32.0	0.35	1.01	898	
11/24/25	154	8.9	50.5	130.4	22.8	0.00	0.30	953								151.5	10.4	66.6	127.4	26.6	0.09	1.05	882	
11/25/25	152.9	8.7	43.1	127.4	26.5	0.01	0.33	943								151.6	10.3	58.9	135.5	23.3	0.08	1.02	898	
11/26/25	153.3	9.3	50.1	132.1	26.7	0.03	0.35	909	143.1	10.2	65.2	128.9	29.1	0.34	0.73	883	149.9	10.9	37.2	133.0	23.7	0.19	0.99	878
11/27/25									147.8	10.2	55.5	127.7	28.2	0.23	0.72	887	149.4	10.8	47.1	130.9	20.7	0.07	1.00	911
11/28/25									146.6	10.1	62.2	126.4	25.3	0.15	0.73	880	145.2	11.0	43.9	128.2	22.0	0.11	0.99	900
11/29/25	156.4	9.7	54.2	128.3	29.4	0.01	0.33	954	146.4	10.8	52.6	126.5	23.9	0.20	0.76	872								
11/30/25	156.9	10.3	75.6	129.6	28.8	0.00	0.36	894	152	10.8	74.5	126.5	30.5	0.15	0.79	882								
<b>Average</b>	154	9.2	54.2	128.0	25.2	0.02	0.30	912	147	10.0	68.8	128.9	24.0	0.28	0.60	879	151	9.9	58.6	133.4	24.3	0.10	0.99	875
<b>Min</b>	152	8.6	36.2	124.4	15.0	0.00	0.24	856	140	9.3	48.7	121.2	10.8	0.15	0.36	857	145	9.3	34.2	125.3	16.1	0.02	0.90	849
<b>Max</b>	159	10.3	75.6	132.1	36.0	0.09	0.36	982	152	10.8	102.5	142.6	32.7	0.47	0.79	907	155	11.0	95.8	146.3	32.0	0.45	1.05	911
<b>St Dev</b>	1.7	0.4	12.3	2.1	4.2	0.03	0.04	34.3	2.7	0.4	15.0	5.1	4.6	0.09	0.12	10.4	1.7	0.5	14.9	5.7	3.8	0.10	0.04	19.3

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.