



ANNEX D7

THERMAL OXIDIZER, LANDFILL GAS
FLARE AND LANDFILL GAS GENERATOR
STACK EMISSION MONITORING
RESULTS

TABLE D7.1 THERMAL OXIDISER STACK EMISSION MONITORING RESULTS

Parameters	Monitoring Results
NO ₂	0.45 gs ⁻¹
CO	0.02 gs ⁻¹
SO ₂	<0.01 gs ⁻¹
Benzene	<2.0 x 10 ⁻⁴ gs ⁻¹
Vinyl chloride	<1.0 x 10 ⁻⁴ gs ⁻¹
Exhaust gas velocity	9.0 ms ⁻¹

TABLE D7.2 THERMAL OXIDISER STACK CONTINUOUS MONITORING RESULTS

Date	Gas Combustion Temperature (°C)	Exhaust Temperature (K)	Exhaust Gas Velocity (ms ⁻¹) ^(a)
1 Oct 25	897	1173	9.0
2 Oct 25	899	1174	
3 Oct 25	894	1167	
4 Oct 25	896	1164	
5 Oct 25	Under Maintenance		
6 Oct 25	899	1171	
7 Oct 25	894	1166	
8 Oct 25	891	1165	
9 Oct 25	844	1168	
10 Oct 25	897	1167	
11 Oct 25	901	1169	
12 Oct 25	908	1168	
13 Oct 25	Under Maintenance		
14 Oct 25	Under Maintenance		
15 Oct 25	Under Maintenance		
16 Oct 25	Under Maintenance		
17 Oct 25	Under Maintenance		
18 Oct 25	Under Maintenance		
19 Oct 25	Under Maintenance		
20 Oct 25	Under Maintenance		
21 Oct 25	Under Maintenance		
22 Oct 25	901	1160	
23 Oct 25	899	1182	
24 Oct 25	899	1188	
25 Oct 25	901	1193	
26 Oct 25	905	1195	
27 Oct 25	902	1175	
28 Oct 25	901	1194	
29 Oct 25	896	1191	
30 Oct 25	900	1179	
31 Oct 25	899	1191	
Average	896	1176	-
Min	844	1160	-
Max	908	1195	-

Notes:

(a) The exhaust gas velocity was calculated based on the cross-section area of the stack and the gas flow and combustion temperature data measured during the stack emission monitoring.

TABLE D7.3 LANDFILL GAS FLARE STACK EMISSION MONITORING RESULTS

Parameters	Monitoring Results
NO ₂	0.02 gs ⁻¹
CO	0.06 gs ⁻¹
SO ₂	<0.01 gs ⁻¹
Benzene	<1.19 x 10 ⁻⁴ gs ⁻¹
Vinyl chloride	<9.5 x 10 ⁻⁵ gs ⁻¹
Exhaust gas velocity	9.1 ms ⁻¹

TABLE D7.4 LANDFILL GAS FLARE STACK CONTINUOUS MONITORING RESULTS

Date	Gas Combustion Temperature (°C)	Exhaust Temperature (K)	Exhaust Gas Velocity (ms ⁻¹) (a)	Operation Status
Flare 1 – F601				
1 Oct 25	873	1125	9.1	In Operation
2 Oct 25	878	1126		In Operation
3 Oct 25	869	1120		In Operation
4 Oct 25	871	1122		In Operation
5 Oct 25	876	1125		In Operation
6 Oct 25	860	1112		In Operation
7 Oct 25	877	1127		In Operation
8 Oct 25	862	1111		In Operation
9 Oct 25	863	1113		In Operation
10 Oct 25	865	1114		In Operation
11 Oct 25	876	1127		In Operation
12 Oct 25	870	1121		In Operation
13 Oct 25	878	1127		In Operation
14 Oct 25	860	1111		In Operation
15 Oct 25	875	1128		In Operation
16 Oct 25	866	1119		In Operation
17 Oct 25	880	1132		In Operation
18 Oct 25	873	1122		In Operation
19 Oct 25	873	1122		In Operation
20 Oct 25	874	1123		In Operation
21 Oct 25	860	1112		In Operation
22 Oct 25	863	1116		In Operation
23 Oct 25	874	1124		In Operation
24 Oct 25	872	1122		In Operation
25 Oct 25	873	1124		In Operation
26 Oct 25	872	1123		In Operation
27 Oct 25	872	1125		In Operation
28 Oct 25	879	1131		In Operation
29 Oct 25	871	1120		In Operation
30 Oct 25	866	1115		In Operation
31 Oct 25	869	1120		In Operation
Average	871	1121	-	
Min	860	1111	-	
Max	880	1132	-	

Date	Gas Combustion Temperature (°C)	Exhaust Temperature (K)	Exhaust Gas Velocity (ms ⁻¹) ^(a)	Operation Status
Flare 2 – F602				
1 Oct 25	882	1130	9.1	In Operation
2 Oct 25	885	1137		In Operation
3 Oct 25	877	1125		In Operation
4 Oct 25	880	1128		In Operation
5 Oct 25	887	1138		In Operation
6 Oct 25	878	1126		In Operation
7 Oct 25	890	1140		In Operation
8 Oct 25	895	1146		In Operation
9 Oct 25	882	1130		In Operation
10 Oct 25	884	1136		In Operation
11 Oct 25	883	1134		In Operation
12 Oct 25	891	1144		In Operation
13 Oct 25	898	1147		In Operation
14 Oct 25	892	1145		In Operation
15 Oct 25	885	1133		In Operation
16 Oct 25	885	1133		In Operation
17 Oct 25	898	1148		In Operation
18 Oct 25	893	1142		In Operation
19 Oct 25	896	1146		In Operation
20 Oct 25	887	1137		In Operation
21 Oct 25	898	1147		In Operation
22 Oct 25	881	1129		In Operation
23 Oct 25	888	1139		In Operation
24 Oct 25	877	1128		In Operation
25 Oct 25	889	1142		In Operation
26 Oct 25	883	1135		In Operation
27 Oct 25	889	1139		In Operation
28 Oct 25	887	1139		In Operation
29 Oct 25	888	1141		In Operation
30 Oct 25	900	1151		In Operation
31 Oct 25	893	1142		In Operation
Average	888	1138	-	
Min	877	1125	-	
Max	900	1151	-	

Notes:

(a) The exhaust gas velocity was calculated based on the cross-section area of the stack and the gas flow and combustion temperature data measured during the stack emission monitoring.

TABLE D7.5 LANDFILL GAS GENERATOR STACK CONTINUOUS MONITORING RESULTS

Date	Gas Combustion Temperature (°C)	Operation Status
ENGA		
1 Oct 25	854	In Operation
2 Oct 25	856	In Operation
3 Oct 25	849	In Operation
4 Oct 25	858	In Operation
5 Oct 25	857	In Operation
6 Oct 25	845	In Operation
7 Oct 25	849	In Operation
8 Oct 25	849	In Operation
9 Oct 25	853	In Operation
10 Oct 25	852	In Operation
11 Oct 25	857	In Operation
12 Oct 25	853	In Operation
13 Oct 25	-	Under Maintenance
14 Oct 25	-	Under Maintenance
15 Oct 25	-	Under Maintenance
16 Oct 25	-	Under Maintenance
17 Oct 25	-	Under Maintenance
18 Oct 25	-	Under Maintenance
19 Oct 25	-	Under Maintenance
20 Oct 25	-	Under Maintenance
21 Oct 25	852	In Operation
22 Oct 25	854	In Operation
23 Oct 25	-	Under Maintenance
24 Oct 25	-	Under Maintenance
25 Oct 25	-	Under Maintenance
26 Oct 25	-	Under Maintenance
27 Oct 25	-	Under Maintenance
28 Oct 25	-	Under Maintenance
29 Oct 25	-	Under Maintenance
30 Oct 25	848	In Operation
31 Oct 25	-	Under Maintenance
Average	853	
Min	845	
Max	858	

Date	Gas Combustion Temperature (°C)	Operation Status
ENGB		
1 Oct 25	840	In Operation
2 Oct 25	841	In Operation
3 Oct 25	839	In Operation
4 Oct 25	840	In Operation
5 Oct 25	868	In Operation
6 Oct 25	841	In Operation
7 Oct 25	841	In Operation
8 Oct 25	838	In Operation
9 Oct 25	842	In Operation
10 Oct 25	844	In Operation
11 Oct 25	836	In Operation
12 Oct 25	864	In Operation
13 Oct 25	858	In Operation
14 Oct 25	869	In Operation
15 Oct 25	870	In Operation
16 Oct 25	869	In Operation
17 Oct 25	866	In Operation
18 Oct 25	864	In Operation
19 Oct 25	857	In Operation
20 Oct 25	844	In Operation
21 Oct 25	861	In Operation
22 Oct 25	856	In Operation
23 Oct 25	857	In Operation
24 Oct 25	863	In Operation
25 Oct 25	865	In Operation
26 Oct 25	850	In Operation
27 Oct 25	863	In Operation
28 Oct 25	867	In Operation
29 Oct 25	867	In Operation
30 Oct 25	869	In Operation
31 Oct 25	866	In Operation
Average	855	
Min	836	
Max	870	