



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY COMPLIANCE SUMMARY REPORT



Date 10/29/22

Wheel Plant Wheelabrator North Andover
Unit 1 Unit 1
Outlet Source Outlet

Date	Hour	On-Line Minutes	O2		NOx		SO2					CO			Carbon Feed		FF Temp (deg F)		Steam KLbs/Hr		
			Out Vol % Dry	Status	Outlet ppm 7%O2	Status	Outlet ppm 7%O2	Status	Inlet ppm 7%O2	Status	Removal	Status	Outlet ppm 7%O2	Status	4 Hr Block	Status	Lbs/Hr Avg.	8 Hr Block	1 Hr Avg.	4 Hr Block	1 Hr Avg.
10/29/2022	0	60	10.7		194		4		78		96		6			13		308		166.1	
10/29/2022	1	60	10.8		200		12		96		88		5			13		310		167.5	
10/29/2022	2	60	10.8		199		11		94		88		5			13		310		166.3	
10/29/2022	3	60	10.8		198		6		75		92		6	5		13		309	309	163.2	165.8
10/29/2022	4	60	10.8		198		6		71		92		5			13		310		159.9	
10/29/2022	5	60	10.7		199		5		68		92		6			13		310		165.4	
10/29/2022	6	60	10.6		195		1		46		98		6			13		309		164.9	
10/29/2022	7	60	10.5		197		1		58		98		6	6		13	13	311	310	166.3	164.1
10/29/2022	8	60	10.8		202		14		96		85		5			13		322		166.1	
10/29/2022	9	60	10.8		197		3		70		95		6			13		311		164.2	
10/29/2022	10	60	10.7		198		2		65		98		6			13		310		165.7	
10/29/2022	11	60	10.9		201		4		83		95		5	5		13		310	313	167.2	165.8
10/29/2022	12	60	10.4		192		6		102		94		5			13		306		163.7	
10/29/2022	13	60	10.2		197		1		74		98		5			13		309		166.1	
10/29/2022	14	60	10.4		197		4		78		95		5			13		310		165.4	
10/29/2022	15	60	11.1		200		10		88		89		6	5		13	13	309	309	164.8	165.0
10/29/2022	16	60	11.0		197		7		79		92		6			13		309		165.4	
10/29/2022	17	60	10.8		195		10		84		88		6			13		310		166.0	
10/29/2022	18	60	10.9		198		10		92		89		6			13		309		166.6	
10/29/2022	19	60	10.7		197		13		86		85		6	6		13		309	309	168.0	166.5
10/29/2022	20	60	10.8		192		9		83		89		6			13		307		164.2	
10/29/2022	21	60	10.7		198		8		80		89		6			13		309		165.2	
10/29/2022	22	60	10.9		188		9		84		90		7			13		302		163.0	
10/29/2022	23	60	10.8		197		9		66		87		7	7		13	13	313	308	166.2	164.7

Average:
Geometric Mean Average:

Limit:

197	5
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

93
≥ 75% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

see above
≥ 12 lb/hr 8-HR. Block Average

see above
≤ 345 °F 4-HR Block Average

see above
≤ 173 klb/hr 4-HR Block Average

Status Flags

- I - Invalid
- B - Bad
- C - Calibration
- M - Maintenance
- F - Offline
- P - Purge
- T - Out of Control
- E - Excluded
- ^ - Startup
- * - Shutdown



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY COMPLIANCE SUMMARY REPORT



Date 10/29/22

Wheel Plant Wheelabrator North Andover
Unit 2 Unit Unit 1
Outlet Source Outlet

Date	Hour	On-Line Minutes	O2		NOx		SO2					CO			Carbon Feed		FF Temp (deg F)		Steam KLbs/Hr		
			Out Vol % Dry	Status	Outlet ppm 7%O2	Status	Outlet ppm 7%O2	Status	Inlet ppm 7%O2	Status	Removal	Status	Outlet ppm 7%O2	Status	4 Hr Block	Status	Lbs/Hr Avg.	8 Hr Block	1 Hr Avg.	4 Hr Block	1 Hr Avg.
10/29/2022	0	60	10.7		193		7		71		90		2			13		310		166.1	
10/29/2022	1	60	10.7		193		8		82		90		2			13		310		165.8	
10/29/2022	2	60	10.7		195		15		104		86		2			13		310		165.1	
10/29/2022	3	60	10.7		195		12		89		86		2	2		13		310	310	164.2	165.3
10/29/2022	4	60	10.8		182		15		92		84		4			13		310		163.9	
10/29/2022	5	60	10.7		196		8		69		88		3			13		310		166.0	
10/29/2022	6	60	10.7		195		4		44		91		3			13		310		164.3	
10/29/2022	7	60	10.7		198		4		61		94		3	3		13	13	310	310	165.8	165.0
10/29/2022	8	60	10.8		196		22		134		83		3			13		310		165.3	
10/29/2022	9	60	10.7		194		6		70		91		2			13		310		165.5	
10/29/2022	10	60	10.7		186		4		61		94		2			13		310		166.1	
10/29/2022	11	60	10.7		194		5		73		94		3	2		13		310	310	165.4	165.6
10/29/2022	12	60	10.8		194		4		68		94		2			13		310		165.7	
10/29/2022	13	60	10.7		192		4		72		95		2			13		310		166.2	
10/29/2022	14	60	10.7		193		8		81		91		1			13		310		165.3	
10/29/2022	15	60	10.6		197		7		67		90		2	2		13	13	310	310	166.3	165.9
10/29/2022	16	60	10.6		191		11		85		87		2			13		310		164.4	
10/29/2022	17	60	10.7		195		24		120		80		2			13		310		164.9	
10/29/2022	18	60	10.5		191		13		91		85		2			13		310		166.2	
10/29/2022	19	60	10.6		186		9		74		88		2	2		13		308	310	165.2	165.2
10/29/2022	20	60	10.6		195		7		65		90		2			13		305		165.7	
10/29/2022	21	60	10.6		195		11		72		85		2			13		310		166.1	
10/29/2022	22	60	10.6		192		15		82		82		2			13		310		165.0	
10/29/2022	23	60	10.6		191		14		77		81		2	2		13	13	310	309	165.6	165.6

Average: Geometric Mean Average:	193	8	OR	89	see above	see above	see above	see above
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 75% Removal Efficiency	≤ 69 ppmc 4-HR Block Average	≥ 12 lb/hr 8-HR. Block Average	≤ 345 °F 4-HR Block Average	≤ 173 klb/hr 4-HR Block Average

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 29-Oct-2022

Plant Wheelabrator North Andover
Unit Unit 1
Source Outlet

Opacity is a measure of how much soot or smoke may be contained in stack emissions. The more smoke that is contained in the emissions the higher the level of opacity. Continuous opacity monitors located after all of the air pollution control equipment measure the opacity of the emissions from each boiler. Typically the human eye can not detect or see smoke that is less than 5% opacity. You won't see smoke from a modern trash-to-energy plant although in colder weather you will see water vapor condensation, similar to seeing your breath on a cold day. This is not considered opacity. We have a permit limit established by the Massachusetts Department of Environmental Protection of 10% opacity averaged every six (6) minutes.

Limit 10 %

Time (hr)	1-6 min	7-12 min	13-18 min	19-24 min	25-30 min	31-36 min	37-42 min	43-48 min	49-54 min	55-60 min	Average
0	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1
6	3	IC	5	IC	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1

Status Flags

I - Invalid C - Calibration F - Offline T - Out of Control ^ - Startup
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 29-Oct-2022

Plant Wheelabrator North Andover
Unit Unit 2
Source Outlet

Opacity is a measure of how much soot or smoke may be contained in stack emissions. The more smoke that is contained in the emissions the higher the level of opacity. Continuous opacity monitors located after all of the air pollution control equipment measure the opacity of the emissions from each boiler. Typically the human eye can not detect or see smoke that is less than 5% opacity. You won't see smoke from a modern trash-to-energy plant although in colder weather you will see water vapor condensation, similar to seeing your breath on a cold day. This is not considered opacity. We have a permit limit established by the Massachusetts Department of Environmental Protection of 10% opacity averaged every six (6) minutes.

Limit 10 %

Time (hr)	1-6 min	7-12 min	13-18 min	19-24 min	25-30 min	31-36 min	37-42 min	43-48 min	49-54 min	55-60 min	Average
0	1	1	1	2	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1
6	2	IBC	5	IBC	1	2	2	2	2	2	2
7	2	2	2	2	2	2	2	2	2	2	2
8	2	2	2	2	2	2	2	1	2	2	2
9	2	2	2	2	2	2	2	2	2	2	2
10	2	2	2	2	2	2	2	2	1	2	2
11	1	1	1	1	1	1	1	1	1	1	1
12	1	2	2	2	2	2	2	2	2	2	2
13	2	2	2	2	2	2	1	1	1	2	2
14	1	1	1	1	1	1	1	1	1	1	1
15	2	2	2	2	2	2	2	2	2	2	2
16	1	1	1	2	2	1	1	1	1	1	1
17	2	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1
20	1	1	2	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1

Status Flags

I - Invalid C - Calibration F - Offline T - Out of Control ^ - Startup
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown