



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



Date 8/27/22

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.
8/27/2022	0	60	10.4		183		15		70		79		4			14		313		164.1	
8/27/2022	1	60	10.4		185		14		68		79		4			14		312		164.5	
8/27/2022	2	60	10.4		169		11		75		85		5			14		311		165.3	
8/27/2022	3	60	10.5		187		16		86		81		5	5		14		308	311	166.1	165.0
8/27/2022	4	60	10.5		188		22		100		78		5			14		308		166.0	
8/27/2022	5	60	10.3		195		11		66		83		5			14		309		163.9	
8/27/2022	6	60	10.4		192		11		61		82		4			14		315		166.5	
8/27/2022	7	60	10.5		176		9		80		88		5	5		14	14	301	308	166.6	165.8
8/27/2022	8	60	10.5		186		11		87		87		5			14		299		166.1	
8/27/2022	9	60	10.4		194		18		68		74		4			14		312		166.4	
8/27/2022	10	60	10.6		186		16		75		79		5			14		310		165.3	
8/27/2022	11	60	10.5		191		21		101		79		4	4		14		310	308	166.1	166.0
8/27/2022	12	60	10.4		185		25		111		77		4			14		313		168.3	
8/27/2022	13	60	10.4		181		18		73		75		5			14		311		165.2	
8/27/2022	14	60	10.4		181		15		82		82		4			14		309		165.2	
8/27/2022	15	60	10.4		179		15		75		80		4	4		14	14	306	310	165.5	166.1
8/27/2022	16	60	10.4		168		18		74		76		4			14		307		165.6	
8/27/2022	17	60	10.4		178		17		66		74		4			14		308		164.6	
8/27/2022	18	60	10.5		173		11		70		84		6			14		305		163.8	
8/27/2022	19	60	10.6		172		13		78		83		6	5		14		299	305	164.3	164.6
8/27/2022	20	60	10.6		182		21		81		74		5			14		307		162.8	
8/27/2022	21	60	10.5		189		21		70		70		5			14		310		164.4	
8/27/2022	22	60	10.6		187		24		89		73		4			14		316		165.1	
8/27/2022	23	60	10.5		173		20		76		73		4	5		14	14	308	310	165.4	164.4

Average:
Geometric Mean Average:

Limit:

182	16
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

80
≥ 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 8/27/22

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.
8/27/2022	0	60	10.9		165		19		44		58		5			13		325		166.5	
8/27/2022	1	60	10.9		161		17		47		65		4			14		321		166.4	
8/27/2022	2	60	10.7		164		16		49		68		5			14		324		165.9	
8/27/2022	3	60	10.9		162		6		46		86		4	5		14		312	321	166.7	166.4
8/27/2022	4	60	10.9		168		24		85		72		7			14		303		166.8	
8/27/2022	5	60	10.7		172		8		40		80		5			14		313		167.0	
8/27/2022	6	60	10.9		173		10		45		77		6			13		309		165.7	
8/27/2022	7	60	10.9		165		14		56		75		4	5		14	14	307	308	166.8	166.6
8/27/2022	8	60	10.8		164		20		73		73		5			14		309		167.3	
8/27/2022	9	60	10.8		170		11		49		78		5			14		309		165.6	
8/27/2022	10	60	11.0		171		13		65		80		5			14		307		165.7	
8/27/2022	11	60	11.0		166		18		67		73		5	5		15		305	307	166.4	166.2
8/27/2022	12	60	11.0		167		21		72		71		5			14		305		166.9	
8/27/2022	13	60	10.9		165		21		63		67		6			15		310		167.3	
8/27/2022	14	60	10.8		163		16		52		69		5			15		311		167.4	
8/27/2022	15	60	10.7		159		8		49		83		4	5		15	14	303	307	166.1	166.9
8/27/2022	16	60	10.8		163		18		53		66		4			15		309		166.3	
8/27/2022	17	60	10.8		165		11		41		73		4			15		312		164.3	
8/27/2022	18	60	10.8		160		17		51		68		5			15		311		167.9	
8/27/2022	19	60	10.8		156		21		61		65		4	4		15		310	311	167.5	166.5
8/27/2022	20	60	11.0		163		21		77		72		4			15		307		167.5	
8/27/2022	21	60	10.8		168		25		75		67		5			15		309		168.8	
8/27/2022	22	60	11.0		167		28		97		71		4			14		312		167.1	
8/27/2022	23	60	11.2		170		25		76		68		4	4		15	15	317	311	166.9	167.5

Average:
Geometric Mean Average:

Limit:

165	16
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

73
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

see above
≥ 12 8-HR. Block Average

lb/hr

see above
≤ 345 4-HR Block Average

°F

see above
≤ 173 4-HR Block Average

klb/hr

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 27-Aug-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	2
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 27-Aug-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	2	2	2	2	2	2	2	2	2	2	2
1	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2
3	2	2	2	2	2	2	2	2	2	2	2
4	2	2	2	2	2	2	2	2	2	2	2
5	2	2	2	2	2	2	2	2	2	2	2
6	2	IBC	6	IBC	2	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	2	2	2	2
9	2	2	2	2	2	2	2	2	2	2	2
10	2	2	2	2	2	2	2	2	2	2	2
11	2	2	2	2	2	2	2	2	2	2	2
12	2	2	2	2	2	2	2	2	2	2	2
13	2	2	2	2	2	2	2	2	2	2	2
14	2	2	2	2	2	2	2	2	2	2	2
15	2	2	2	2	2	2	2	2	2	2	2
16	2	2	2	2	2	2	2	2	2	2	2
17	2	2	2	2	2	2	2	2	2	2	2
18	2	2	2	2	2	2	2	2	2	2	2
19	2	2	2	2	2	2	2	2	2	2	2
20	2	2	2	2	2	2	2	2	2	2	2
21	2	2	2	2	2	2	3	2	2	2	2
22	2	2	2	2	2	2	3	3	3	2	2
23	3	3	2	2	2	2	2	2	2	2	2

Status Flags

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