



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



Date 6/12/22

Wheel Plant Wheelabrator North Andover
Unit 1 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.
6/12/2022	0	60	9.5		181		10		49		79		2			14		304		162.9	
6/12/2022	1	60	9.5		181		13		67		80		3			13		304		162.1	
6/12/2022	2	60	9.5		192		19		70		73		2			13		304		164.7	
6/12/2022	3	60	9.4		194		15		57		73		2	2		13		305	304	165.7	163.8
6/12/2022	4	60	9.6		197		23		69		67		2			13		304		165.2	
6/12/2022	5	60	9.4		188		17		49		66		2			13		304		164.7	
6/12/2022	6	60	9.4		191		15		56		73		2			14		305		167.6	
6/12/2022	7	60	9.6		195		19		63		70		3	2		14	13	305	304	164.4	165.5
6/12/2022	8	60	9.5		191		19		78		76		2			14		304		164.9	
6/12/2022	9	60	9.6		164		26		114		77		3			13		304		161.5	
6/12/2022	10	60	9.9		157		19		89		78		2			13		304		158.1	
6/12/2022	11	60	9.7		193		23		98		77		1	2		13		304	304	167.1	162.9
6/12/2022	12	60	9.6		188		15		81		81		2			13		305		166.4	
6/12/2022	13	60	9.7		191		14		53		73		2			13		304		165.7	
6/12/2022	14	60	9.7		187		13		57		78		2			14		304		163.8	
6/12/2022	15	60	9.6		180		15		68		78		3	2		13	13	305	305	165.2	165.3
6/12/2022	16	60	9.6		186		18		61		70		2			13		305		166.4	
6/12/2022	17	60	9.7		190		16		60		74		2			14		304		164.3	
6/12/2022	18	60	9.6		179		16		63		74		2			14		305		164.6	
6/12/2022	19	60	9.3		178		16		55		71		2	2		14		305	304	165.7	165.3
6/12/2022	20	60	9.2		173		11		55		81		3			13		304		164.8	
6/12/2022	21	60	9.3		175		10		55		82		2			13		305		167.0	
6/12/2022	22	60	10.8		190		11		50		78		16			13		304		153.9	
6/12/2022	23	19	14.3	IF	188	IF	8	IF	26	IBF	71	IBF	376	IF	7	14	13	306	304	90.4	161.9

Average:
Geometric Mean Average:

Limit:

184	16
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

76
≥ 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

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 6/12/22

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.
6/12/2022	0	60	10.5		197		21		65		67		2			14		306		165.1	
6/12/2022	1	60	10.3		198		21		55		62		1			14		308		166.3	
6/12/2022	2	60	10.1		196		25		56		56		1			14		312		168.9	
6/12/2022	3	60	10.4		197		15		43		67		2	2		14		311	309	166.8	166.8
6/12/2022	4	60	10.0		188		17		43		60		3			14		304		165.0	
6/12/2022	5	60	10.0		195		20		70		72		2			15		305		169.5	
6/12/2022	6	60	10.5		195		23		60		61		2			14		305		165.4	
6/12/2022	7	60	10.5		197		22		42		46		2	2		14	14	313	307	164.9	166.2
6/12/2022	8	60	10.4		196		24		55		57		2			14		323		167.0	
6/12/2022	9	60	10.4		190		23		44		49		2			14		321		168.9	
6/12/2022	10	60	10.5		192		17		53		68		2			14		310		166.0	
6/12/2022	11	60	10.4		195		21		55		62		2	2		14		308	315	166.6	167.1
6/12/2022	12	60	10.4		197		9		32		72		2			14		305		165.8	
6/12/2022	13	60	10.2		191		9		31		72		1			14		307		167.6	
6/12/2022	14	60	10.5		198		8		30		74		1			14		301		165.5	
6/12/2022	15	60	10.6		196		9		26		65		2	2		14	14	305	305	163.6	165.6
6/12/2022	16	60	10.5		195		13		30		56		2			14		305		165.3	
6/12/2022	17	60	10.6		196		17		32		48		2			14		309		165.9	
6/12/2022	18	60	10.4		192		19		39		50		2			15		311		166.8	
6/12/2022	19	60	10.3		197		22		55		59		2	2		14		309	309	166.1	166.0
6/12/2022	20	60	10.3		195		9		27		67		2			14		309		165.9	
6/12/2022	21	60	10.6		190		14		47		70		2			14		304		164.0	
6/12/2022	22	60	10.4		198		15		39		60		1			14		308		167.0	
6/12/2022	23	60	10.3		193		13		33		61		1	2		14	14	312	308	167.5	166.1

Average:
Geometric Mean Average:

Limit:

195	16
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

63
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 12-Jun-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	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	IC	6	IC	2	2	2	2	2	2	2	
7	2	2	2	2	2	2	2	2	2	2	3	
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	2	2	2	2	2	
22	2	2	2	2	2	2	2	2	2	2	2	
23	2	2	2	2	IF	2	IF	2	IF	2	IF	2

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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 12-Jun-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	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	2	IBC	5	IBC	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	0	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1
22	1	1	0	0	0	0	0	0	1	0	0
23	1	1	1	1	1	1	0	0	1	1	0

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