



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



Date 5/6/22

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.
5/6/2022	0	60	10.0		142		3		38		93		7			13		297		165.8	
5/6/2022	1	60	9.9		152		10		36		73		6			13		311		167.5	
5/6/2022	2	60	9.8		151		9		38		76		6			14		302		168.7	
5/6/2022	3	60	10.0		162		14		41		65		6	6		14		304	304	167.6	167.4
5/6/2022	4	60	9.9		163		10		33		69		5			13		311		168.9	
5/6/2022	5	60	9.9		161		10		25		61		6			13		306		166.3	
5/6/2022	6	60	10.0		150		9		30		70		6			14		305		168.0	
5/6/2022	7	60	10.0		157		7		27		73		7	6		14	14	304	307	163.9	166.8
5/6/2022	8	60	9.9		161		15		33		54		7			13		311		168.4	
5/6/2022	9	60	9.9		165		10		30		66		9			14		309		169.4	
5/6/2022	10	60	9.8		163		1		24		95		8			14		309		169.3	
5/6/2022	11	60	10.1		156		3		32		90		8	8		13		312	310	167.2	168.6
5/6/2022	12	60	10.0		154		5		39		87		7			14		305		166.7	
5/6/2022	13	60	10.1		168		7		39		82		7			14		310		166.0	
5/6/2022	14	60	9.9		168		7		39		83		7			14		313		168.6	
5/6/2022	15	60	9.9		159		1		27		95		7	7		14	14	306	308	167.4	167.2
5/6/2022	16	60	9.9		166		1		31		96		7			14		306		170.8	
5/6/2022	17	60	10.2		174		2		58		96		7			14		298		166.1	
5/6/2022	18	60	10.0		179		2		38		93		7			14		301		167.7	
5/6/2022	19	60	10.1		180		9		42		79		7	7		14		305	302	167.1	167.9
5/6/2022	20	60	9.9		171		10		30		67		6			14		312		169.7	
5/6/2022	21	60	10.2		170		8		29		72		6			14		310		168.2	
5/6/2022	22	60	10.1		170		8		27		69		6			14		316		166.6	
5/6/2022	23	60	10.0		174		16		37		57		7	6		13	14	318	314	166.5	167.8

Average:
Geometric Mean Average:

Limit:

163	6
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

83
≥ 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 5/6/22

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.
5/6/2022	0	60	8.0		189		0		44		100		1			14		310		166.5	
5/6/2022	1	60	7.8		188		0		48		99		1			14		310		168.0	
5/6/2022	2	60	7.9		188		1		45		99		0			14		310		167.8	
5/6/2022	3	60	8.2		187		3		48		95		1	1		14		310	310	167.6	167.5
5/6/2022	4	60	8.0		180		0		43		99		1			15		310		168.2	
5/6/2022	5	60	8.2		187		2		48		95		0			14		310		166.8	
5/6/2022	6	60	8.4		178		0		28		100		0			14		310		167.4	
5/6/2022	7	60	8.1		186		0		20		100		1	0		14	14	310	310	164.7	166.8
5/6/2022	8	60	8.1		178		0		28		100		1			14		310		169.8	
5/6/2022	9	60	8.2		189		0		29		100		2			14		310		167.4	
5/6/2022	10	60	8.3		185		0		24		100		1			15		310		167.9	
5/6/2022	11	60	8.1		173		0		26		100		2	1		14		310	310	168.2	168.3
5/6/2022	12	60	8.1		188		0		24		100		1			14		310		167.3	
5/6/2022	13	60	8.3		188		0		41		100		1			14		310		167.7	
5/6/2022	14	60	7.9		184		0		35		100		1			14		310		167.2	
5/6/2022	15	60	7.7		183		0		27		100		1	1		14	14	310	310	167.9	167.5
5/6/2022	16	60	7.8		181		0		27		100		0			14		310		166.7	
5/6/2022	17	60	8.2		168		7		97		93		1			15		309		167.8	
5/6/2022	18	60	8.3		144		0		31		100		0			14		310		169.4	
5/6/2022	19	60	7.9		178		2		74		98		1	1		14		310	310	167.1	167.7
5/6/2022	20	60	7.8		170		0		62		100		1			14		310		167.3	
5/6/2022	21	60	8.0		185		0		54		100		0			14		310		168.1	
5/6/2022	22	60	8.0		185		0		45		100		1			14		310		167.1	
5/6/2022	23	60	7.9		182		0		34		100		1	1		14	14	310	310	167.5	167.5

Average:
Geometric Mean Average:

Limit:

181	0
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

100
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average ppmc

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

see above
≤ 345 °F 4-HR Block Average

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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 06-May-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	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	2	2	2	2	2
22	2	2	2	2	2	2	2	2	2	2	2
23	2	2	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



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 06-May-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	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	2	IBC	4	IBC	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0

Status Flags

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