



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



Date 6/27/22

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.
6/27/2022	0	60	10.3		183		15		48		68		3			13		309		167.2	
6/27/2022	1	60	10.1		202		20		53		61		2			13		309		166.4	
6/27/2022	2	60	10.1		199		20		49		59		2			13		309		168.3	
6/27/2022	3	60	10.1		199		18		53		65		2	2		13		310	309	165.3	166.8
6/27/2022	4	60	9.5		189		19		67		71		8			13		309		172.7	
6/27/2022	5	60	10.3		198		15		41		64		4			13		309		163.0	
6/27/2022	6	60	10.3		221		6		28		80		2			13		309		168.5	
6/27/2022	7	60	10.3		183		2		25		94		3	4		14	13	309	309	165.8	167.5
6/27/2022	8	60	10.6		180		3		29		90		3			14		309		161.9	
6/27/2022	9	60	10.5		200		6		34		82		5			13		310		164.5	
6/27/2022	10	60	10.8		218		8		36		77		1			14		309		167.0	
6/27/2022	11	60	10.4		197		4		30		86		4	3		13		310	309	167.5	165.2
6/27/2022	12	60	10.2		199		8		40		79		8			13		309		166.7	
6/27/2022	13	60	10.2		198		12		34		66		6			13		309		166.7	
6/27/2022	14	60	10.2		197		16		42		61		4			13		309		165.0	
6/27/2022	15	60	10.0		193		9		44		80		5	6		14	13	310	309	165.2	165.9
6/27/2022	16	60	10.4		192		31		113		73		4			13		309		167.6	
6/27/2022	17	60	10.4		199		24		80		69		3			13		309		166.5	
6/27/2022	18	60	10.3		200		29		106		73		4			14		310		164.9	
6/27/2022	19	60	10.1		197		43		146		71		5	4		13		309	309	166.8	166.5
6/27/2022	20	60	10.0		197		64		228		72		5			13		310		166.5	
6/27/2022	21	60	10.1		198		36		129		72		4			13		309		166.1	
6/27/2022	22	60	10.2		199		27		96		72		4			14		309		166.3	
6/27/2022	23	60	10.1		197		22		78		72		4	4		13	13	309	309	164.3	165.8

Average:
Geometric Mean Average:

Limit:

197	14
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

75
≥ 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 6/27/22

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.
6/27/2022	0	60	10.2		191		20		28		28		2			14		319		170.8	
6/27/2022	1	60	10.4		191		12		17		29		1			13		317		165.2	
6/27/2022	2	60	10.4		188		6		12		49		1			13		317		165.1	
6/27/2022	3	60	10.4		184		9		17		43		2	2		13		317	317	166.5	166.9
6/27/2022	4	60	10.3		177		1		25		95		8			14		300		164.2	
6/27/2022	5	60	9.9		184		8		29		74		1			13		303		167.9	
6/27/2022	6	60	10.0		187		3		16		81		2			13		308		166.0	
6/27/2022	7	60	10.2		186		0		8		95		2	3		14	14	311	306	164.2	165.6
6/27/2022	8	60	10.1		166		1		8		92		2			13		311		166.3	
6/27/2022	9	60	10.0		181		0		4		99		3			13		305		164.2	
6/27/2022	10	60	10.2		163		0		1		100		2			13		306		166.6	
6/27/2022	11	60	10.2		172		0		2		100		2	2		13		306	307	165.0	165.5
6/27/2022	12	60	10.2		191		1		9		92		4			13		306		167.1	
6/27/2022	13	60	10.1		190		2		7		78		3			13		310		166.3	
6/27/2022	14	60	10.1		188		2		5		69		2			13		317		166.2	
6/27/2022	15	60	10.1		195		11		14		24		4	3		14	13	320	314	166.1	166.4
6/27/2022	16	60	10.6		180		20		36		45		3			13		323		163.5	
6/27/2022	17	60	10.5		172		20		26		24		2			13		319		166.4	
6/27/2022	18	60	10.2		185		23		42		45		2			14		321		166.3	
6/27/2022	19	60	10.2		184		35		94		63		3	2		13		317	320	166.7	165.7
6/27/2022	20	60	10.2		192		82		176		53		3			12		313		166.7	
6/27/2022	21	60	10.1		194		25		61		60		2			13		313		166.8	
6/27/2022	22	60	10.2		192		15		31		51		1			14		309		167.6	
6/27/2022	23	60	10.3		193		9		18		50		1	2		13	13	308	311	166.1	166.8

Average:
Geometric Mean Average:

Limit:

184	4
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

81
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

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≤ 12 8-HR. Block Average

lb/hr

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 27-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	3
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

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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 27-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	0	1	1	1	0	1
3	1	1	0	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1
5	0	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	0	0	0	0	0	1	1	1	0	0
11	1	1	1	1	1	1	0	0	0	1	0
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	0	1	1	0	0	0	0	0	0
15	0	0	0	1	1	1	1	1	1	1	1
16	0	1	1	1	1	1	0	1	0	1	1
17	1	1	1	0	1	1	1	1	1	1	1
18	1	1	1	1	0	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

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