



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



Date 6/2/22

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.
6/2/2022	0	60	10.2		198		7		40		82		3			13		304		165.2	
6/2/2022	1	60	10.3		197		9		40		77		3			13		305		163.4	
6/2/2022	2	60	10.2		200		14		49		71		3			13		305		168.1	
6/2/2022	3	60	10.3		196		12		47		75		3	3		13		304	304	165.2	165.5
6/2/2022	4	60	10.3		199		17		53		68		2			13		304		164.5	
6/2/2022	5	60	10.2		199		12		47		74		2			13		305		166.0	
6/2/2022	6	60	10.3		191		13		43		71		3			13		304		166.2	
6/2/2022	7	60	10.3		191		4		33		89		3	3		14	13	304	304	162.4	164.8
6/2/2022	8	60	10.4		197		5		32		85		3			13		305		163.3	
6/2/2022	9	60	10.2		197		6		31		82		3			14		304		164.4	
6/2/2022	10	60	10.2		198		4		27		86		3			13		304		164.4	
6/2/2022	11	60	10.4		198		4		27		85		3	3		13		305	304	163.8	164.0
6/2/2022	12	60	10.4		200		14		49		71		2			13		304		168.5	
6/2/2022	13	60	10.2		195		6		37		85		3			13		304		165.6	
6/2/2022	14	60	10.5		196		9		39		78		2			13		305		165.2	
6/2/2022	15	60	10.5		198		8		43		81		2	2		13	13	304	304	165.5	166.2
6/2/2022	16	60	10.3		193		3		33		90		3			14		304		164.8	
6/2/2022	17	60	10.2		188		9		50		82		3			13		304		165.1	
6/2/2022	18	60	10.6		198		10		34		70		2			13		304		162.6	
6/2/2022	19	60	10.4		197		14		45		69		3	3		14		305	304	165.8	164.6
6/2/2022	20	60	10.1		198		11		46		77		3			13		305		167.0	
6/2/2022	21	60	10.3		201		20		62		69		3			13		304		166.6	
6/2/2022	22	60	10.4		196		23		86		73		4			13		304		165.3	
6/2/2022	23	60	10.4		195		21		86		75		3	3		14	13	304	304	164.4	165.8

Average:
Geometric Mean Average:

Limit:

197	9
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

79
≥ 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



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Date 6/2/22

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.
6/2/2022	0	60	10.3		196		9		38		76		0			12		313		166.4	
6/2/2022	1	60	10.3		196		9		43		79		0			12		313		166.0	
6/2/2022	2	60	10.2		194		10		45		78		0			12		315		165.8	
6/2/2022	3	60	10.2		195		7		36		82		0	0		14		316	314	166.3	166.1
6/2/2022	4	60	10.2		198		15		48		70		1			14		317		167.5	
6/2/2022	5	60	10.3		195		7		43		83		0			14		312		165.5	
6/2/2022	6	60	10.4		193		6		37		85		0			14		305		165.9	
6/2/2022	7	60	10.4		194		3		28		89		0	0		14	13	305	310	163.9	165.7
6/2/2022	8	60	10.3		197		3		19		84		0			13		310		163.8	
6/2/2022	9	60	10.2		191		3		20		86		1			14		311		165.3	
6/2/2022	10	60	10.3		193		6		31		81		0			14		315		166.0	
6/2/2022	11	60	10.2		194		5		30		84		0	1		14		307	311	165.3	165.1
6/2/2022	12	60	10.1		195		3		25		88		1			14		311		165.0	
6/2/2022	13	60	10.3		193		5		32		86		0			14		305		165.5	
6/2/2022	14	60	10.5		188		6		34		83		0			14		303		165.7	
6/2/2022	15	60	10.3		198		6		36		82		0	0		14	14	306	306	164.3	165.1
6/2/2022	16	60	10.2		194		5		23		79		0			14		314		165.7	
6/2/2022	17	60	10.2		189		12		37		69		1			14		317		165.2	
6/2/2022	18	60	10.4		192		9		27		66		0			13		314		165.6	
6/2/2022	19	60	10.3		193		7		23		71		0	0		14		316	316	165.4	165.5
6/2/2022	20	60	10.1		195		12		38		69		0			14		313		166.2	
6/2/2022	21	60	10.3		196		25		60		59		0			14		311		165.7	
6/2/2022	22	60	10.3		195		18		53		66		0			13		306		165.1	
6/2/2022	23	60	10.3		195		22		55		61		0	0		13	14	311	310	165.6	165.7

Average:
Geometric Mean Average:

Limit:

194	7
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

79
≥ 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 02-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	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 02-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	0	0	1	1	0	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	0	1	1
10	1	1	1	1	1	1	1	1	1	1	1
11	0	0	0	1	1	1	1	1	1	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	1	1	0	0	1	0	1	0	0
15	1	1	1	1	1	1	1	1	0	1	0
16	0	0	0	1	0	0	1	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	1	1	0	0
20	1	0	0	1	0	0	0	0	0	0	0
21	1	0	1	1	1	1	0	0	0	1	0
22	1	1	1	1	1	1	1	1	0	1	0
23	0	1	1	1	1	1	1	1	0	1	1

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