



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



Date 4/29/22

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.
4/29/2022	0	60	9.7		174		12		27		56		4			13		304		167.5	
4/29/2022	1	60	9.7		186		16		12		0		5			13		307		168.9	
4/29/2022	2	60	10.0		181		10		14		33		5			13		305		166.1	
4/29/2022	3	60	9.9		178		12		16		28		5	5		13		309	306	166.6	167.3
4/29/2022	4	60	9.8		173		9		12		23		5			13		312		167.5	
4/29/2022	5	60	9.8		171		8		12		35		4			13		312		167.8	
4/29/2022	6	60	9.8		173		3		9		66		5			13		306		165.9	
4/29/2022	7	60	9.8		166		4		12		71		5	5		13	13	303	308	166.5	166.9
4/29/2022	8	60	9.9		180		8		15		45		6			13		311		166.1	
4/29/2022	9	60	9.7		180		15		21		27		10			13		313		168.5	
4/29/2022	10	60	9.6		166		4		19		78		9			13		304		168.3	
4/29/2022	11	60	9.8		176		7		16		55		6	8		13		313	310	167.5	167.6
4/29/2022	12	60	9.8		172		9		19		54		6			13		308		167.5	
4/29/2022	13	60	10.0		172		6		22		72		6			13		304		166.4	
4/29/2022	14	60	9.8		182		12		28		55		6			14		313		167.3	
4/29/2022	15	60	9.7		182		7		26		72		7	6		15	13	318	311	167.0	167.1
4/29/2022	16	60	9.9		174		10		68		85		7			14		307		168.9	
4/29/2022	17	60	10.0		171		1		24		96		5			14		301		168.5	
4/29/2022	18	60	9.8		177		2		39		94		6			13		302		165.5	
4/29/2022	19	60	9.8		178		5		32		85		5	6		13		309	305	167.3	167.6
4/29/2022	20	60	9.7		177		6		30		82		6			14		311		168.9	
4/29/2022	21	60	9.9		173		3		28		89		5			13		307		165.3	
4/29/2022	22	60	9.6		171		5		32		85		5			13		308		168.1	
4/29/2022	23	60	9.7		175		10		39		75		5	5		13	13	310	309	167.3	167.4

Average: Geometric Mean Average:	175	6	OR	69	see above	see above	see above	see above
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 75% Removal Efficiency	≤ 69 ppmc 4-HR Block Average	≤ 12 lb/hr 8-HR. Block Average	≤ 345 °F 4-HR Block Average	≤ 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 4/29/22

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.
4/29/2022	0	60	9.8		192		0		21		100		3			14		310		167.3	
4/29/2022	1	60	9.6		196		0		17		100		4			13		310		167.8	
4/29/2022	2	60	9.8		198		0		24		100		4			14		310		167.5	
4/29/2022	3	60	9.8		199		1		27		97		4	4		13		310	310	167.5	167.5
4/29/2022	4	60	9.7		194		0		23		98		6			14		310		167.9	
4/29/2022	5	60	9.8		194		0		33		99		4			13		310		167.6	
4/29/2022	6	60	9.7		194		0		29		100		5			14		310		166.4	
4/29/2022	7	60	9.7		195		0		27		100		5	5		14	14	310	310	167.9	167.4
4/29/2022	8	60	9.9		193		3		43		93		6			13		310		166.9	
4/29/2022	9	60	9.4		204		1		33		98		8			13		310		169.0	
4/29/2022	10	60	9.6		192		1		34		98		7			13		310		166.5	
4/29/2022	11	60	9.6		199		1		23		97		5	7		13		310	310	166.9	167.3
4/29/2022	12	60	9.7		196		0		22		98		8			13		310		168.2	
4/29/2022	13	60	10.0		198		0		32		99		4			14		309		167.6	
4/29/2022	14	60	9.6		198		0		30		99		5			14		310		167.4	
4/29/2022	15	60	9.5		196		0		27		100		5	6		13	13	310	310	167.8	167.7
4/29/2022	16	60	9.7		199		0		43		100		4			13		310		167.2	
4/29/2022	17	60	9.7		199		0		30		100		5			13		310		168.2	
4/29/2022	18	60	9.5		196		0		43		99		4			12		310		167.8	
4/29/2022	19	60	9.5		196		0		39		99		4	4		13		310	310	167.7	167.7
4/29/2022	20	60	9.4		193		0		38		100		4			12		310		168.0	
4/29/2022	21	60	9.5		193		0		42		100		5			13		310		167.5	
4/29/2022	22	60	9.5		194		0		50		99		4			13		310		167.9	
4/29/2022	23	60	9.5		196		0		47		100		4	5		13	13	310	310	167.8	167.8

Average: Geometric Mean Average:	196	0	OR	100	see above	see above	see above	see above			
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 75% Removal Efficiency	≤ 69 4-HR Block Average	ppmc	≤ 12 8-HR. Block Average	lb/hr	≤ 345 °F 4-HR Block Average	≤ 173 4-HR Block Average	klb/hr

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 29-Apr-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 29-Apr-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