



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



Date 6/20/22

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.
6/20/2022	0	60	10.4		197		8		36		77		2			13		304		166.5	
6/20/2022	1	60	10.3		195		16		48		67		3			13		305		163.1	
6/20/2022	2	60	10.3		200		13		40		69		2			13		304		164.7	
6/20/2022	3	60	10.2		195		11		39		73		3	2		13		304	304	164.5	164.7
6/20/2022	4	60	10.2		202		14		39		64		3			13		304		165.8	
6/20/2022	5	60	10.3		194		14		38		64		3			13		304		168.6	
6/20/2022	6	60	10.4		199		15		39		61		2			13		305		166.2	
6/20/2022	7	60	10.5		198		16		38		59		3	3		13	13	304	304	166.7	166.9
6/20/2022	8	60	10.7		193		7		28		76		4			13		304		162.8	
6/20/2022	9	60	10.8		198		21		73		71		3			13		304		167.4	
6/20/2022	10	60	11.1		192		16		54		70		7			13		304		163.5	
6/20/2022	11	60	11.1		192		5		33		84		7	5		13		305	304	154.2	162.0
6/20/2022	12	60	10.8		197		6		31		80		5			13		305		162.1	
6/20/2022	13	60	10.8		199		8		33		76		4			13		305		165.7	
6/20/2022	14	60	10.8		198		4		22		80		4			13		304		164.0	
6/20/2022	15	60	10.5		195		4		32		87		5	5		13	13	304	304	165.3	164.3
6/20/2022	16	60	10.4		198		9		39		76		6			13		304		167.8	
6/20/2022	17	60	10.7		198		13		35		64		7			13		304		166.6	
6/20/2022	18	60	10.6		199		20		53		62		6			13		304		166.8	
6/20/2022	19	60	10.6		199		21		51		59		6	6		13		304	304	165.2	166.6
6/20/2022	20	60	10.5		198		16		37		56		5			13		304		165.4	
6/20/2022	21	60	10.5		196		12		30		61		5			13		304		166.0	
6/20/2022	22	60	10.4		196		16		36		56		4			13		304		165.2	
6/20/2022	23	60	10.2		196		13		32		60		5	5		13	13	305	304	166.2	165.7

Average:  
Geometric Mean Average:

Limit:

197	11
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

70
≥ 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 6/20/22

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.
6/20/2022	0	60	10.7		192		1		4		82		1			12		298		163.7	
6/20/2022	1	60	10.6		194		13		7		0		3			13		308		166.6	
6/20/2022	2	60	10.3		187		14		3		0		1			13		315		166.6	
6/20/2022	3	60	10.4		186		11		5		0		1	2		12		311	308	169.5	166.6
6/20/2022	4	60	10.0		196		9		4		0		3			12		303		171.3	
6/20/2022	5	60	10.4		185		11		3		0		2			13		309		171.0	
6/20/2022	6	60	10.5		186		3		0		0		3			13		302		165.3	
6/20/2022	7	60	10.6		196		2		0		0		4	3		13	13	308	306	164.8	168.1
6/20/2022	8	60	11.0		195		1		0		0		6			13		310		159.0	
6/20/2022	9	60	10.8		189		1		0		0		5			13		309		164.6	
6/20/2022	10	60	10.6		190		4		0		0		4			13		314		166.4	
6/20/2022	11	60	10.5		191		6		0		0		4	5		12		317	313	165.7	163.9
6/20/2022	12	60	10.5		194		2		0		0		5			12		312		164.9	
6/20/2022	13	60	10.5		192		3		0		0		5			12		311		165.6	
6/20/2022	14	60	10.7		195		3		1		0		3			11		308		165.7	
6/20/2022	15	60	10.4		195		1		0		0		3	4		16	13	309	310	165.9	165.5
6/20/2022	16	60	10.2		195		4		0		0		4			14		316		165.8	
6/20/2022	17	60	10.4		198		8		0		0		5			13		320		165.4	
6/20/2022	18	60	10.5		191		9		0		0		5			14		317		166.6	
6/20/2022	19	60	10.5		197		7		0		0		4	5		15		314	317	165.8	165.9
6/20/2022	20	60	10.4		197		6		0		0		4			16		313		166.6	
6/20/2022	21	60	10.4		196		7		0		0		3			14		313		167.3	
6/20/2022	22	60	10.5		196		6		0		0		3			15		313		166.5	
6/20/2022	23	60	10.5		195		8		0		0		3	3		14	14	316	314	165.8	166.6

Average: Geometric Mean Average:	193	4	<b>OR</b>	0	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 20-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

**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 20-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	0	1	1
4	1	1	1	1	1	1	0	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	0	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	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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