



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



Date 6/19/22

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.
6/19/2022	0	60	10.1		192		13		62		79		1			13		304		170.8	
6/19/2022	1	60	10.6		198		14		45		68		1			13		305		163.8	
6/19/2022	2	60	10.5		199		9		42		77		2			13		304		166.1	
6/19/2022	3	60	10.5		197		6		39		84		2	1		13		305	304	164.6	166.3
6/19/2022	4	60	10.5		199		9		41		79		3			13		304		162.8	
6/19/2022	5	60	10.4		198		8		35		78		3			13		305		164.7	
6/19/2022	6	60	10.5		195		3		32		91		3			13		304		162.2	
6/19/2022	7	60	10.2		192		3		29		90		3	3		13	13	304	304	165.3	163.7
6/19/2022	8	60	10.3		196		8		43		82		3			13		305		166.0	
6/19/2022	9	60	10.4		197		9		40		77		3			13		304		164.4	
6/19/2022	10	60	10.5		198		10		42		75		2			13		304		164.6	
6/19/2022	11	60	10.3		199		9		43		78		3	3		13		304	304	166.4	165.3
6/19/2022	12	60	10.5		196		13		45		71		3			13		305		162.9	
6/19/2022	13	60	10.5		193		8		37		80		6			13		304		164.2	
6/19/2022	14	60	10.3		200		8		34		76		2			13		304		165.4	
6/19/2022	15	60	10.4		194		6		30		81		3	4		13	13	305	304	164.4	164.2
6/19/2022	16	60	10.3		189		5		33		84		3			13		304		166.8	
6/19/2022	17	60	10.6		200		12		41		70		2			13		304		164.1	
6/19/2022	18	60	10.5		198		20		63		68		3			13		304		163.7	
6/19/2022	19	60	10.3		201		17		48		65		2	3		13		305	304	167.8	165.6
6/19/2022	20	60	10.6		197		16		43		61		2			13		304		164.2	
6/19/2022	21	60	10.4		192		12		44		73		3			13		305		166.9	
6/19/2022	22	60	10.4		195		12		40		69		2			13		304		165.8	
6/19/2022	23	60	10.3		198		19		56		67		2	2		13	13	304	304	167.7	166.2

Average:  
Geometric Mean Average:

Limit:

196	9
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

77
≥ 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 6/19/22

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.
6/19/2022	0	60	10.3		180		4		0		0		1			13		313		169.8	
6/19/2022	1	60	10.7		175		3		0		0		1			14		310		166.8	
6/19/2022	2	60	10.8		183		1		0		0		1			13		312		164.6	
6/19/2022	3	60	10.6		183		1		0		0		1	1		14		314	312	166.4	166.9
6/19/2022	4	60	10.8		189		2		0		0		3			11		312		166.2	
6/19/2022	5	60	10.8		189		2		9		73		2			12		314		165.9	
6/19/2022	6	60	10.7		187		2		14		84		3			14		315		164.9	
6/19/2022	7	60	10.6		186		2		15		84		3	3		14	13	316	314	167.9	166.2
6/19/2022	8	60	10.5		188		1		16		92		2			14		305		166.2	
6/19/2022	9	60	10.6		191		2		15		88		2			14		307		164.9	
6/19/2022	10	60	10.8		186		3		13		80		2			14		308		166.0	
6/19/2022	11	60	11.0		192		1		14		93		2	2		13		305	307	163.2	165.1
6/19/2022	12	60	10.7		192		3		17		85		2			13		303		166.5	
6/19/2022	13	60	10.7		192		2		13		89		3			13		306		164.5	
6/19/2022	14	60	10.8		195		3		9		68		2			13		309		165.2	
6/19/2022	15	60	10.7		190		4		9		54		2	2		14	13	311	307	166.1	165.6
6/19/2022	16	60	10.9		190		3		5		39		2			13		310		165.2	
6/19/2022	17	60	10.8		192		3		4		11		2			13		309		165.5	
6/19/2022	18	60	10.9		194		11		15		27		2			13		313		165.5	
6/19/2022	19	60	10.8		187		13		16		16		2	2		13		315	312	167.0	165.8
6/19/2022	20	60	10.9		180		13		15		19		2			13		313		165.8	
6/19/2022	21	60	10.4		181		7		6		0		1			13		313		170.6	
6/19/2022	22	60	10.6		194		1		2		67		1			12		300		165.0	
6/19/2022	23	60	10.3		182		9		3		0		3	2		13	13	310	309	171.8	168.3

Average:  
Geometric Mean Average:

Limit:

187	3
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

11
≥ 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

°F

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≤ 173 4-HR Block Average

klb/hr

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# WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 19-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 19-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	1	1	1	1	1	1
7	1	1	1	1	1	1	0	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	0	1	1	1	1
13	1	1	1	1	1	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	0	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1
18	1	1	0	1	1	1	1	1	0	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	0	1	1	1	1	1	1	0	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	0	1	1	1	1	1	1	1

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