



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



Date 10/22/22

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.
10/22/2022	0	60	10.1		85		4		5		16		1			16		252		68.6	
10/22/2022	1	60	9.8		199		19		72		74		104			15		311		143.9	
10/22/2022	2	60	10.5		192		4		58		94		6			15		309		167.1	
10/22/2022	3	60	10.5		201		3		62		96		8	30		15		310	296	165.8	136.3
10/22/2022	4	60	10.6		195		3		63		96		8			13		313		163.6	
10/22/2022	5	60	10.7		200		7		59		88		7			11		317		165.2	
10/22/2022	6	60	10.9		195		10		48		79		9			16		314		162.9	
10/22/2022	7	60	10.9		194		4		40		89		9	8		15	15	310	314	161.4	163.3
10/22/2022	8	60	11.5		196		13		59		78		12			15		313		166.5	
10/22/2022	9	60	11.5		200		11		53		80		11			15		308		166.2	
10/22/2022	10	60	11.7		197		15		72		80		12			15		308		164.9	
10/22/2022	11	60	10.7		201		8		57		87		9	11		14		309	309	160.5	164.5
10/22/2022	12	60	10.5		198		9		62		85		6			14		309		166.2	
10/22/2022	13	60	10.6		199		9		59		85		6			14		310		165.2	
10/22/2022	14	60	10.6		198		16		67		77		6			14		309		166.6	
10/22/2022	15	60	10.6		200		20		74		72		6	6		14	15	309	309	166.1	166.0
10/22/2022	16	60	10.7		199		18		67		74		7			14		309		164.1	
10/22/2022	17	60	10.4		197		15		73		79		7			14		309		164.9	
10/22/2022	18	60	10.3		200		19		86		78		6			14		310		165.0	
10/22/2022	19	60	10.3		200		27		127		79		7	6		15		309	309	164.8	164.7
10/22/2022	20	60	10.4		198		18		71		74		6			14		309		166.9	
10/22/2022	21	60	10.6		199		20		81		75		5			14		309		165.3	
10/22/2022	22	60	10.5		200		17		67		74		5			14		310		164.8	
10/22/2022	23	60	10.4		198		20		83		76		6	5		14	14	309	309	164.5	165.4

Average: Geometric Mean Average:	193	11	<b>OR</b>	82	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

**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 10/22/22

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.
10/22/2022	0	60	11.6		195		25		101		75		5			14		310		164.9	
10/22/2022	1	60	11.3		198		19		67		72		5			14		310		165.0	
10/22/2022	2	60	11.2		197		18		66		72		5			14		310		165.2	
10/22/2022	3	60	11.2		196		20		82		75		5	5		14		310	310	165.8	165.2
10/22/2022	4	60	11.1		197		22		84		74		7			14		310		165.3	
10/22/2022	5	60	11.2		196		22		93		76		6			13		310		165.2	
10/22/2022	6	60	11.2		198		15		52		71		6			14		310		165.5	
10/22/2022	7	60	11.3		197		14		51		72		6	6		13	14	310	310	165.3	165.3
10/22/2022	8	60	11.5		197		18		76		77		7			14		310		165.6	
10/22/2022	9	60	11.4		196		17		75		78		6			13		310		165.6	
10/22/2022	10	60	11.2		195		15		69		78		6			14		310		166.8	
10/22/2022	11	60	11.2		196		9		40		78		7	6		14		310	310	165.5	165.9
10/22/2022	12	60	11.2		196		10		42		76		6			14		310		165.1	
10/22/2022	13	60	11.1		198		15		54		72		5			14		310		165.3	
10/22/2022	14	60	11.2		197		17		57		70		5			14		310		166.0	
10/22/2022	15	60	11.1		197		17		48		66		5	5		14	14	310	310	165.8	165.6
10/22/2022	16	60	11.0		197		19		80		76		5			14		310		165.2	
10/22/2022	17	60	11.2		194		17		59		71		5			14		310		165.6	
10/22/2022	18	60	11.1		194		18		64		72		5			14		310		165.6	
10/22/2022	19	60	11.3		195		16		70		77		6	5		15		309	310	161.8	164.6
10/22/2022	20	60	11.4		192		19		61		69		4			14		310		165.7	
10/22/2022	21	60	11.2		193		18		52		66		4			14		310		165.6	
10/22/2022	22	60	11.2		194		18		49		63		3			14		310		165.6	
10/22/2022	23	60	11.0		198		17		63		73		4	4		14	14	310	310	165.8	165.7

Average:  
Geometric Mean Average:

Limit:

196	17
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

73
≥ 75% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

see above
≥ 12 lb/hr 8-HR. Block Average

see above
≤ 345 °F 4-HR Block Average

see above
≤ 173 klb/hr 4-HR Block Average

**Status Flags**

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



Date 22-Oct-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	0	0	0	0	0	0	0	0	0	0	0
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	3	IC	5	IC	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	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	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

**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 22-Oct-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	2
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	2	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	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	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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