



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



Date 4/6/22

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.
4/6/2022	0	60	10.3		189		19		72		73		6			14		308		165.7	
4/6/2022	1	60	10.1		183		9		49		82		5			14		302		168.2	
4/6/2022	2	60	10.2		194		10		42		77		5			12		306		166.8	
4/6/2022	3	60	10.2		195		7		37		82		5	5		13		301	304	167.4	167.0
4/6/2022	4	60	10.3		174		8		37		78		4			13		302		166.1	
4/6/2022	5	60	10.3		188		19		41		54		12			15		311		166.0	
4/6/2022	6	60	10.4		186		15		26		44		6			14		318		163.6	
4/6/2022	7	60	10.5		188		14		21		35		6	7		14	14	317	312	167.4	165.8
4/6/2022	8	60	10.5		175		11		45		75		5			14		305		166.7	
4/6/2022	9	60	10.6		177		11		55		80		7			14		296		164.7	
4/6/2022	10	60	10.7		182		29		94		69		6			13		306		167.8	
4/6/2022	11	60	10.7		190		12		42		71		5	6		14		309	304	166.8	166.5
4/6/2022	12	60	10.5		185		8		23		63		4			13		314		169.2	
4/6/2022	13	60	10.3		185		7		23		67		6			13		312		167.6	
4/6/2022	14	60	9.8		184		6		23		71		6			14		311		168.3	
4/6/2022	15	60	9.8		185		11		23		53		5	5		13	13	318	314	170.6	168.9
4/6/2022	16	60	9.8		172		4		22		83		5			14		305		169.6	
4/6/2022	17	60	10.3		188		15		47		68		5			14		307		166.5	
4/6/2022	18	60	10.4		188		23		76		70		6			16		312		165.5	
4/6/2022	19	60	10.3		190		22		91		76		6	6		13		313	309	167.3	167.2
4/6/2022	20	60	10.2		183		16		41		62		5			15		312		167.0	
4/6/2022	21	60	10.3		184		16		52		69		5			16		308		166.8	
4/6/2022	22	60	10.0		177		10		45		79		5			16		309		167.0	
4/6/2022	23	60	10.0		171		8		32		75		4	5		15	15	307	309	169.6	167.6

Average:  
Geometric Mean Average:

Limit:

184	12
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

71
≥ 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**

- 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 4/6/22

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.
4/6/2022	0	60	10.1		196		20		100		80		3			12		310		168.2	
4/6/2022	1	60	10.1		195		4		53		93		3			13		310		168.0	
4/6/2022	2	60	10.2		196		2		54		97		2			13		310		167.6	
4/6/2022	3	60	10.2		186		2		60		96		2	2		12		310	310	167.3	167.8
4/6/2022	4	60	10.2		189		11		83		87		2			12		310		166.7	
4/6/2022	5	60	10.2		193		6		69		91		2			13		310		168.0	
4/6/2022	6	60	10.3		188		4		52		93		2			14		310		166.9	
4/6/2022	7	60	10.4		192		2		45		94		2	2		13	13	310	310	168.2	167.4
4/6/2022	8	60	10.4		192		13		84		85		1			13		310		167.5	
4/6/2022	9	60	10.4		193		15		93		84		2			12		310		168.8	
4/6/2022	10	60	10.6		196		29		132		78		2			13		310		167.5	
4/6/2022	11	60	10.8		192		7		72		91		1	2		13		309	310	165.9	167.4
4/6/2022	12	60	10.2		192		2		45		95		1			14		310		169.1	
4/6/2022	13	60	10.4		164		3		51		94		1			14		310		169.7	
4/6/2022	14	60	10.5		173		2		51		95		1			13		310		168.5	
4/6/2022	15	60	10.1		196		2		47		95		1	1		14	13	310	310	168.2	168.9
4/6/2022	16	60	10.1		195		2		50		96		2			13		310		168.3	
4/6/2022	17	60	10.3		183		9		79		88		1			14		310		167.6	
4/6/2022	18	60	10.1		195		11		86		87		2			10		310		168.5	
4/6/2022	19	60	10.1		194		6		82		93		2	2		0		310	310	167.7	168.0
4/6/2022	20	60	10.1		190		3		70		95		1			13		310		167.2	
4/6/2022	21	60	10.2		195		2		62		96		1			22		310		168.4	
4/6/2022	22	60	10.2		197		11		96		89		2			21		310		167.7	
4/6/2022	23	60	10.3		198		2		58		96		1	1		13	13	310	310	167.6	167.7

Average:  
Geometric Mean Average:

Limit:

191	5
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

93
≥ 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

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



Date 06-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 06-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	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	IBC	6	IBC	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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