



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



Date 11/16/22

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.
11/16/2022	0	60	11.0		195		16		75		78		9			13		309		165.6	
11/16/2022	1	60	10.8		187		18		63		71		7			13		309		166.3	
11/16/2022	2	60	10.6		192		10		47		78		7			13		310		166.1	
11/16/2022	3	60	10.7		147		11		51		78		7	8		13		308	309	165.0	165.8
11/16/2022	4	60	10.7		150		17		56		70		6			14		310		167.0	
11/16/2022	5	60	10.9		143		19		75		74		5			13		309		165.9	
11/16/2022	6	60	10.9		138		10		53		81		7			13		309		167.6	
11/16/2022	7	60	10.9		143		12		54		78		6	6		14	13	309	309	166.9	166.9
11/16/2022	8	60	10.9		140		14		54		74		6			13		310		166.0	
11/16/2022	9	60	11.1		139		19		64		71		6			13		309		168.1	
11/16/2022	10	60	11.0		140		17		51		67		8			13		309		164.0	
11/16/2022	11	60	10.7		142		15		50		70		8	7		13		310	310	165.5	165.9
11/16/2022	12	60	10.7		145		12		71		83		8			13		309		164.9	
11/16/2022	13	60	10.5		140		11		57		80		8			13		310		165.9	
11/16/2022	14	60	10.5		140		16		70		78		8			14		309		166.0	
11/16/2022	15	60	10.5		143		7		45		85		8	8		13	13	309	309	166.0	165.7
11/16/2022	16	60	11.0		143		18		71		75		5			13		309		166.1	
11/16/2022	17	60	10.9		139		10		48		78		3			14		310		164.0	
11/16/2022	18	60	10.6		140		18		107		83		8			13		309		165.7	
11/16/2022	19	60	10.3		144		17		77		78		6	5		14		309	309	166.1	165.5
11/16/2022	20	60	10.5		140		20		82		76		6			13		310		165.5	
11/16/2022	21	60	10.7		142		27		112		76		5			13		309		167.4	
11/16/2022	22	60	10.5		138		16		81		80		5			13		309		166.9	
11/16/2022	23	60	10.5		139		8		54		86		5	5		13	13	309	309	165.9	166.5

Average:  
Geometric Mean Average:

Limit:

148	14
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

77
≥ 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 11/16/22

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.
11/16/2022	0	60	10.7		210		24		106		77		1			13		310		165.5	
11/16/2022	1	60	10.5		211		13		59		78		2			13		310		166.2	
11/16/2022	2	60	10.4		214		8		49		84		1			14		310		165.5	
11/16/2022	3	60	10.4		148		11		51		78		2	1		13		310	310	165.2	165.6
11/16/2022	4	60	10.6		143		13		48		74		3			13		310		165.4	
11/16/2022	5	60	10.5		138		18		67		73		2			14		310		166.0	
11/16/2022	6	60	10.4		138		8		42		82		2			14		310		165.5	
11/16/2022	7	60	10.4		142		8		39		81		2	2		13	13	310	310	164.7	165.4
11/16/2022	8	60	10.2		140		11		56		81		2			14		311		166.2	
11/16/2022	9	60	10.7		138		16		55		70		1			14		309		166.1	
11/16/2022	10	60	10.8		140		13		53		75		1			13		310		162.8	
11/16/2022	11	60	10.3		140		16		81		80		3	2		13		310	310	166.3	165.3
11/16/2022	12	60	10.2		139		17		96		82		2			13		309		165.1	
11/16/2022	13	60	10.0		139		6		40		84		6			14		310		165.3	
11/16/2022	14	60	10.2		140		13		56		78		3			14		310		166.1	
11/16/2022	15	60	10.2		140		10		50		80		2	3		13	14	310	310	165.3	165.5
11/16/2022	16	60	9.9		139		25		101		75		2			14		310		165.8	
11/16/2022	17	60	9.8		140		21		94		77		2			14		310		165.7	
11/16/2022	18	60	10.2		138		25		99		75		2			14		309		165.7	
11/16/2022	19	60	9.9		141		14		62		78		1	2		13		310	310	165.6	165.7
11/16/2022	20	60	10.2		141		28		114		75		2			14		310		164.9	
11/16/2022	21	60	10.2		138		26		106		75		1			14		310		165.8	
11/16/2022	22	60	10.2		140		20		81		76		1			14		310		165.3	
11/16/2022	23	60	10.1		139		19		73		74		1	1		13	14	310	310	165.5	165.4

Average:  
Geometric Mean Average:

Limit:

149	15
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

78
≥ 75% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

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



Date 16-Nov-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	1	2	2	2	1	1	2	1
11	1	1	1	1	1	1	1	1	1	1	1
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	1	2	1	2	2	1	1	2	2	1
15	2	1	2	2	2	2	2	2	2	2	2
16	2	2	2	2	2	2	2	2	2	2	2
17	1	2	2	2	2	2	2	2	2	2	1
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 16-Nov-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	2	2	1	1
1	2	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	2	1	1	1	1	1	2	2	1	1
6	2	IBC	6	IBC	2	1	2	2	2	2	2
7	2	2	1	2	2	1	1	1	1	1	1
8	2	2	2	2	2	2	2	2	2	2	2
9	2	2	2	1	2	2	1	1	1	2	1
10	2	2	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	2	1	1
12	1	2	1	1	2	1	1	2	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	2	1	1
17	1	2	1	2	2	1	1	1	1	1	1
18	1	2	2	1	2	1	1	1	1	1	1
19	1	1	1	2	1	1	1	1	1	1	1
20	1	2	1	2	1	1	1	1	1	1	1
21	1	2	1	1	1	1	1	1	1	1	1
22	1	1	1	2	2	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1

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