



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



Date 6/25/22

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.
6/25/2022	0	60	10.2		198		17		79		79		3			13		309		167.3	
6/25/2022	1	60	10.4		195		10		50		79		4			13		309		166.1	
6/25/2022	2	60	10.4		201		11		43		74		3			13		309		166.8	
6/25/2022	3	60	10.2		196		9		42		79		3	3		13		309	309	166.3	166.7
6/25/2022	4	60	10.1		196		9		51		82		3			13		310		168.0	
6/25/2022	5	60	10.1		197		3		39		92		3			13		309		166.8	
6/25/2022	6	60	10.2		196		2		44		96		3			13		309		167.0	
6/25/2022	7	60	10.2		192		7		61		89		4	3		13	13	309	309	166.9	167.2
6/25/2022	8	60	10.4		198		7		52		86		3			13		309		164.0	
6/25/2022	9	60	10.5		197		3		40		92		2			13		309		163.7	
6/25/2022	10	60	10.4		201		7		47		86		2			13		310		169.3	
6/25/2022	11	60	10.7		198		11		52		79		3	3		14		309	309	165.1	165.5
6/25/2022	12	60	10.5		198		13		52		75		2			13		309		168.0	
6/25/2022	13	60	10.4		198		14		50		71		2			13		310		169.1	
6/25/2022	14	60	10.6		196		20		72		72		2			13		309		166.5	
6/25/2022	15	60	10.3		196		29		134		79		3	2		13	13	309	309	167.7	167.8
6/25/2022	16	60	10.4		195		15		61		76		3			14		309		168.6	
6/25/2022	17	60	10.5		199		19		55		65		3			14		310		167.9	
6/25/2022	18	60	10.6		196		21		81		75		2			13		309		169.2	
6/25/2022	19	60	10.6		197		22		83		74		3	3		13		309	309	165.0	167.7
6/25/2022	20	60	10.5		198		19		63		70		2			13		310		166.0	
6/25/2022	21	60	10.5		197		14		53		74		2			13		309		165.2	
6/25/2022	22	60	10.3		198		12		43		71		2			13		310		166.0	
6/25/2022	23	60	10.3		196		12		45		74		2	2		13	13	309	309	167.4	166.2

Average:  
Geometric Mean Average:

Limit:

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

OR

81
≥ 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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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.
6/25/2022	0	60	10.1		194		16		37		58		2			13		311		168.4	
6/25/2022	1	60	10.2		191		7		27		75		2			13		312		168.0	
6/25/2022	2	60	10.2		186		1		24		97		2			13		312		167.5	
6/25/2022	3	60	10.2		184		2		23		93		1	2		13		308	311	167.0	167.7
6/25/2022	4	60	10.0		186		0		26		99		3			13		303		167.9	
6/25/2022	5	60	10.1		179		4		36		90		2			13		304		168.4	
6/25/2022	6	60	10.0		182		0		22		100		2			13		306		167.0	
6/25/2022	7	60	10.0		191		1		28		96		3	2		13	13	308	305	167.0	167.6
6/25/2022	8	60	10.1		189		1		14		95		2			13		309		167.6	
6/25/2022	9	60	10.0		188		0		13		100		2			13		308		168.6	
6/25/2022	10	60	9.9		186		1		23		96		2			13		306		168.8	
6/25/2022	11	60	10.0		180		1		22		97		2	2		13		304	307	167.3	168.1
6/25/2022	12	60	9.8		183		1		22		96		2			13		306		168.5	
6/25/2022	13	60	9.8		185		0		32		99		2			13		300		170.2	
6/25/2022	14	60	10.1		186		1		43		97		2			13		295		166.7	
6/25/2022	15	60	9.9		191		15		70		79		2	2		13	13	298	299	168.2	168.4
6/25/2022	16	60	9.9		186		8		40		80		1			13		303		167.8	
6/25/2022	17	60	9.9		188		7		26		74		1			13		306		168.3	
6/25/2022	18	60	9.9		176		11		32		65		2			13		310		169.2	
6/25/2022	19	60	10.1		189		17		40		59		2	1		13		308	307	167.0	168.1
6/25/2022	20	60	10.0		188		20		36		43		2			13		314		170.3	
6/25/2022	21	60	9.9		183		3		26		87		2			13		312		169.3	
6/25/2022	22	60	10.0		194		6		33		82		1			14		306		168.1	
6/25/2022	23	60	10.0		191		5		24		77		1	2		14	13	306	309	169.0	169.2

Average:  
Geometric Mean Average:

Limit:

186	2
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

94
≥ 75% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

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



Date 25-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 25-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	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

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