



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



Date 6/24/23

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.
6/24/2023	0	60	9.9		135		0		71		100		3			13		309		168.0	
6/24/2023	1	60	10.3		142		0		75		100		3			12		309		165.6	
6/24/2023	2	60	10.2		140		2		79		98		3			13		310		165.0	
6/24/2023	3	60	9.9		138		0		77		100		3	3		13		309	309	168.0	166.7
6/24/2023	4	60	10.1		137		3		83		97		5			12		309		166.7	
6/24/2023	5	60	10.0		136		0		67		100		4			13		309		167.8	
6/24/2023	6	60	9.8		138		0		59		100		5			14		310		167.5	
6/24/2023	7	60	10.1		138		0		47		100		6	5		14	13	309	310	166.1	167.0
6/24/2023	8	60	9.9		134		0		57		100		5			15		308		166.5	
6/24/2023	9	60	9.9		140		0		64		100		4			14		310		167.2	
6/24/2023	10	60	10.1		135		1		85		98		3			13		309		167.9	
6/24/2023	11	60	10.0		136		0		65		100		4	4		13		309	309	167.2	167.2
6/24/2023	12	60	10.0		137		0		63		100		4			13		310		166.8	
6/24/2023	13	60	10.2		139		0		56		100		5			13		310		160.7	
6/24/2023	14	60	10.2		139		0		53		100		4			13		309		161.8	
6/24/2023	15	60	10.3		137		1		64		98		5	4		12	13	310	310	162.1	162.9
6/24/2023	16	60	10.5		138		1		56		98		4			13		309		159.0	
6/24/2023	17	60	10.2		135		0		62		100		4			14		309		158.9	
6/24/2023	18	60	10.7		140		2		70		97		6			13		309		153.0	
6/24/2023	19	60	10.1		140		3		74		96		4	5		13		309	309	160.1	157.7
6/24/2023	20	60	10.2		137		10		89		89		4			13		309		158.1	
6/24/2023	21	60	10.0		140		3		68		95		4			13		310		161.7	
6/24/2023	22	60	10.1		139		15		88		83		4			13		309		161.3	
6/24/2023	23	60	10.3		140		8		71		89		4	4		13	13	309	309	160.3	160.4

Average:  
Geometric Mean Average:

Limit:

138	0
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

100
≥ 80% 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



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



Date 6/24/23

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.
6/24/2023	0	60	10.8		142		10		77		87		1			12		310		167.4	
6/24/2023	1	60	10.8		136		14		82		82		2			12		310		167.9	
6/24/2023	2	60	10.7		140		23		97		76		1			14		310		167.4	
6/24/2023	3	60	10.7		140		9		79		89		3	2		13		310	310	167.7	167.6
6/24/2023	4	60	10.5		140		19		108		82		2			16		310		167.6	
6/24/2023	5	60	10.4		139		7		87		92		1			14		310		167.3	
6/24/2023	6	60	10.4		142		5		74		93		1			13	13	310		167.6	
6/24/2023	7	60	10.4		138		7		75		91		1	1		13		310	310	167.3	167.4
6/24/2023	8	60	10.6		140		1		52		98		1			14		310		167.5	
6/24/2023	9	60	10.5		140		7		79		91		0			13		310		168.4	
6/24/2023	10	60	10.4		137		7		74		91		0			13		310		167.4	
6/24/2023	11	60	10.3		138		6		69		91		1	1		12		310	310	166.1	167.3
6/24/2023	12	60	10.5		140		8		75		89		0			14		310		166.1	
6/24/2023	13	60	10.2		139		4		66		94		0			12		310		161.7	
6/24/2023	14	60	10.1		142		9		76		88		0			13		310		161.9	
6/24/2023	15	60	10.4		137		8		66		88		0	0		14	13	310	310	161.0	162.7
6/24/2023	16	60	10.7		140		21		89		76		0			14		310		159.6	
6/24/2023	17	60	10.4		139		12		77		84		0			12		310		158.1	
6/24/2023	18	60	10.5		143		17		84		80		1			13		310		160.3	
6/24/2023	19	60	10.3		138		13		79		83		0	0		12		310	310	160.5	159.6
6/24/2023	20	60	10.4		139		20		94		79		0			13		310		159.4	
6/24/2023	21	60	10.4		138		18		86		79		0			12		310		162.0	
6/24/2023	22	60	10.5		140		23		90		75		0			13		310		162.0	
6/24/2023	23	60	10.5		141		18		76		77		0	0		13	13	310	310	160.8	161.1

Average:  
Geometric Mean Average:

Limit:

139	10
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

87
≥ 80% 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

see above
≤ 173 4-HR Block Average

klb/hr

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



Date 24-Jun-2023

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	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	3	IC	4	IC	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0

**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 24-Jun-2023

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	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	2	IBC	4	IBC	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0

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