



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



Date 6/28/23

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.
6/28/2023	0	60	9.9		131		0		26		100		15			12		310		154.9	
6/28/2023	1	60	9.8		132		0		28		100		5			13		308		167.2	
6/28/2023	2	60	9.5		123		1		33		98		80			12		309		161.3	
6/28/2023	3	60	9.1		130		0		57		100		4	26		12		309	309	164.1	161.9
6/28/2023	4	60	9.5		111		0		51		100		7			12		311		160.7	
6/28/2023	5	60	9.4		130		0		40		100		5			12		308		163.0	
6/28/2023	6	60	9.3		139		0		47		100		5			12		309		165.8	
6/28/2023	7	60	9.4		135		1		55		99		7	6		12	12	310	310	167.6	164.3
6/28/2023	8	60	9.6		133		0		51		100		8			12		309		166.9	
6/28/2023	9	60	9.5		134		0		43		100		9			12		310		165.2	
6/28/2023	10	60	9.8		136		0		56		100		8			12		309		167.1	
6/28/2023	11	60	10.0		118		2		73		98		44	17		12		309	309	170.9	167.5
6/28/2023	12	60	9.7		136		0		51		100		7			12		310		164.2	
6/28/2023	13	60	9.3		137		0		53		100		9			12		310		164.9	
6/28/2023	14	60	9.3		137		0		57		100		8			12		310		164.8	
6/28/2023	15	60	9.1		132		0		51		100		8	8		12	12	309	310	165.7	164.9
6/28/2023	16	60	9.2		135		0		40		100		7			12		310		165.1	
6/28/2023	17	60	9.0		126		0		41		100		9			12		310		164.7	
6/28/2023	18	60	8.8		122		0		54		100		10			12		309		166.0	
6/28/2023	19	60	8.9		122		0		50		100		37	16		12		309	309	163.6	164.9
6/28/2023	20	60	8.4		116		0		52		100		13			13		311		164.2	
6/28/2023	21	60	9.1		136		0		41		100		4			13		309		168.2	
6/28/2023	22	60	9.3		130		0		56		100		6			13		309		164.5	
6/28/2023	23	60	9.3		134		0		44		100		5	7		13	13	309	310	167.0	166.0

Average:  
Geometric Mean Average:

Limit:

130	0
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

100
≥ 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

**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 6/28/23

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.	4 Hr Block
6/28/2023	0	60	20.9	IBM	1	IBM	4	IBM	38		89	IBM	78	IBMT		13		310		166.6		
6/28/2023	1	60	20.9	IBM	0	IBM	4	IBM	43		90	IBM	77	IBMT		13		310		166.7		
6/28/2023	2	60	20.9	IBM	0	IBM	4	IBM	48		92	IBM	79	IBMT		12		310		167.2		
6/28/2023	3	60	20.9	IBM	0	IBM	4	IBM	62		94	IBM	77	IBMT	78	IBMT	13		310	310	166.3	166.7
6/28/2023	4	60	20.9	IBM	0	IBM	4	IBM	53		92	IBM	77	IBMT		13		310		166.1		
6/28/2023	5	60	20.9	IBM	0	IBM	4	IBM	41		91	IBCM	77	IBMT		13		310		166.2		
6/28/2023	6	60	20.9	IBM	0	IBM	4	IBM	40		90	IBM	77	IBMT		13		310		166.9		
6/28/2023	7	60	20.9	IBM	0	IBM	4	IBM	50		92	IBM	76	IBMT	77	IBMT	12	13	310	310	167.2	166.6
6/28/2023	8	60	20.9	IBM	0	IBM	4	IBM	61		94	IBM	77	IBMT		12		310		166.5		
6/28/2023	9	60	20.9	IBM	0	IBM	4	IBM	52		92	IBM	77	IBMT		13		310		167.0		
6/28/2023	10	60	19.8	IBCMT	4	IBCMT	22	IBCMT	54		60	IBCMT	466	IBCMT		12		310		167.4		
6/28/2023	11	60	10.3	IBCMT	149	IBCMT	4	IBCMT	65		94	IBCMT	6	IBCMT	156	IBCMT	12		310	310	167.0	167.0
6/28/2023	12	60	10.5		149		3		64		95		5			13		310		166.2		
6/28/2023	13	60	10.6		138		9		73		87		5			13		310		166.3		
6/28/2023	14	60	10.6		138		9		74		88		6			13		310		166.7		
6/28/2023	15	60	10.3		140		4		64		94		5	5		13	13	310	310	166.0	166.3	
6/28/2023	16	60	10.2		141		2		51		95		5			12		310		166.2		
6/28/2023	17	60	9.9		139		4		68		94		5			13		310		165.4		
6/28/2023	18	60	10.2		140		4		61		94		5			13		310		164.9		
6/28/2023	19	60	10.1		138		1		50		97		4	5		13		310	310	165.4	165.5	
6/28/2023	20	60	10.2		140		6		70		92		5			13		310		166.7		
6/28/2023	21	60	10.4		139		4		59		93		4			13		310		167.4		
6/28/2023	22	60	10.6		141		1		43		97		4			12		310		166.9		
6/28/2023	23	60	10.7		139		2		41		96		4	4		13	13	310	310	166.5	166.9	

Average:  
Geometric Mean Average:

Limit:

140	3
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

94
≥ 80% Removal Efficiency

see above
≤ 69 4-HR Block Average

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



Date 28-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

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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 28-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.

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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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