



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



Date 7/29/23

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.
7/29/2023	0	60	9.7		144		4		57		93		0			19		309		169.3	
7/29/2023	1	60	9.9		140		14		53		73		0			16		309		167.6	
7/29/2023	2	60	10.1		141		13		45		71		0			13		309		167.0	
7/29/2023	3	60	10.0		140		11		48		78		0	0		13		309	309	167.2	167.8
7/29/2023	4	60	9.9		150		13		48		74		0			13		310		167.9	
7/29/2023	5	60	10.0		143		15		63		76		0			13		309		166.7	
7/29/2023	6	60	10.1		139		4		52		92		0			13		309		165.7	
7/29/2023	7	60	10.1		141		10		82		88		0	0		13	14	310	309	169.8	167.5
7/29/2023	8	60	10.3		141		5		68		92		0			13		309		167.2	
7/29/2023	9	60	10.5		141		40		161		75		0			13		309		166.9	
7/29/2023	10	60	10.4		140		11		93		89		0			13		310		166.3	
7/29/2023	11	60	10.5		139		4		71		94		0	0		13		309	309	160.8	165.3
7/29/2023	12	60	10.3		141		0		51		100		0			13		309		158.5	
7/29/2023	13	60	10.4		140		3		76		97		0			13		309		159.5	
7/29/2023	14	60	10.2		144		6		81		92		0			13		310		159.7	
7/29/2023	15	60	10.1		139		0		54		99		0	0		13	13	309	309	162.3	160.0
7/29/2023	16	60	10.2		140		1		65		98		0			13		309		161.0	
7/29/2023	17	60	10.0		143		0		51		100		0			13		310		161.2	
7/29/2023	18	60	9.9		141		0		57		100		0			13		309		161.3	
7/29/2023	19	60	9.7		142		1		60		98		0	0		13		310	310	165.5	162.2
7/29/2023	20	60	9.7		139		1		52		99		0			13		309		168.2	
7/29/2023	21	60	9.9		140		1		49		99		0			13		309		167.8	
7/29/2023	22	60	9.9		143		5		55		92		0			13		310		168.7	
7/29/2023	23	60	10.1		140		3		51		95		0	0		13	13	309	309	167.4	168.0

Average: Geometric Mean Average:	141	3	<b>OR</b>	95	see above	see above	see above	see above			
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 80% Removal Efficiency	≤ 69 4-HR Block Average	ppmc	≥ 12 8-HR. Block Average	lb/hr	≤ 345 °F 4-HR Block Average	≤ 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 7/29/23

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.
7/29/2023	0	60	10.3		139		3		59		95		4			16		310		167.1	
7/29/2023	1	60	10.3		139		1		52		99		4			13		310		167.7	
7/29/2023	2	60	10.4		138		5		58		92		4			13		310		168.1	
7/29/2023	3	60	10.3		142		5		60		92		5	4		13		310	310	167.6	167.6
7/29/2023	4	60	10.3		139		2		51		96		5			12		310		168.0	
7/29/2023	5	60	10.4		141		9		71		87		5			12		310		168.4	
7/29/2023	6	60	10.5		136		4		65		93		5			12		310		167.6	
7/29/2023	7	60	10.6		142		11		87		88		6	5		12	13	310	310	168.1	168.0
7/29/2023	8	60	10.7		140		19		125		85		6			12		310		166.8	
7/29/2023	9	60	10.8		140		1		55		99		3			12		310		168.5	
7/29/2023	10	60	10.9		140		46		235		80		6			13		310		166.9	
7/29/2023	11	60	10.8		138		15		124		88		5	5		12		310	310	160.3	165.6
7/29/2023	12	60	10.7		141		2		71		98		4			13		310		159.3	
7/29/2023	13	60	10.7		140		2		69		97		4			13		310		159.3	
7/29/2023	14	60	10.7		140		0		67		99		3			13		310		160.3	
7/29/2023	15	60	10.7		139		2		69		98		3	4		13	13	310	310	162.3	160.3
7/29/2023	16	60	10.6		140		0		57		100		4			13		310		161.4	
7/29/2023	17	60	10.6		141		0		62		100		4			12		310		162.9	
7/29/2023	18	60	10.5		138		0		60		100		4			12		310		161.6	
7/29/2023	19	60	10.4		140		0		48		100		3	4		12		310	310	166.7	163.2
7/29/2023	20	60	10.5		140		0		53		100		3			12		310		168.2	
7/29/2023	21	60	10.6		140		0		57		100		3			13		310		167.5	
7/29/2023	22	60	10.8		140		3		74		96		4			13		310		167.1	
7/29/2023	23	60	10.9		138		3		71		96		4	4		11	12	310	310	167.0	167.4

Average: Geometric Mean Average:	140	1	<b>OR</b>	99	see above	see above	see above	see above
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 80% Removal Efficiency	≤ 69 ppmc 4-HR Block Average	≥ 12 lb/hr 8-HR. Block Average	≤ 345 °F 4-HR Block Average	≤ 173 klb/hr 4-HR Block Average

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



Date 29-Jul-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	0	IC	0	IC	0	0	0	0	0	0	0
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 29-Jul-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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