



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



Date 4/10/23

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.
4/10/2023	0	60	9.7		128		8		86		91		5			14		309		158.9	
4/10/2023	1	60	9.5		140		12		71		82		3			13		309		165.2	
4/10/2023	2	60	9.4		140		9		62		86		4			14		310		167.3	
4/10/2023	3	60	9.5		141		13		66		80		4	4		14		309	309	166.8	164.5
4/10/2023	4	60	9.5		142		16		80		80		4			13		309		165.2	
4/10/2023	5	60	9.6		138		16		90		82		4			13		309		166.9	
4/10/2023	6	60	9.8		140		4		49		92		5			13		309		161.4	
4/10/2023	7	60	9.5		141		10		86		89		5	5		13	13	310	310	166.9	165.1
4/10/2023	8	60	9.9		140		15		104		86		4			13		309		165.2	
4/10/2023	9	60	9.6		141		13		97		86		4			13		309		166.6	
4/10/2023	10	60	9.3		140		9		122		93		6			13		309		165.2	
4/10/2023	11	60	9.1		139		0		68		100		6	5		13		310	309	166.7	165.9
4/10/2023	12	60	9.8		140		1		62		98		6			13		309		166.2	
4/10/2023	13	60	9.8		141		0		50		99		3			12		309		165.5	
4/10/2023	14	60	9.8		139		0		59		100		6			12		309		166.4	
4/10/2023	15	60	9.5		140		0		46		100		5	5		12	13	310	309	166.0	166.0
4/10/2023	16	60	9.6		142		0		45		100		5			14		309		165.4	
4/10/2023	17	60	9.7		140		0		47		100		4			14		309		166.1	
4/10/2023	18	60	9.7		141		0		43		100		4			14		309		166.6	
4/10/2023	19	60	9.7		140		0		49		100		5	5		14		309	309	164.3	165.6
4/10/2023	20	60	9.9		142		0		42		100		5			14		310		166.5	
4/10/2023	21	60	9.8		141		0		35		100		5			15		309		166.6	
4/10/2023	22	60	9.7		139		0		42		100		5			14		309		163.8	
4/10/2023	23	60	9.7		140		0		51		100		5	5		14	14	309	309	166.1	165.8

Average:  
Geometric Mean Average:

Limit:

140	1
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

99
≥ 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



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



Date 4/10/23

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.
4/10/2023	0	60	10.8		140		11		0		0		0			14		310		165.9	
4/10/2023	1	60	10.8		139		15		0		0		1			13		310		166.0	
4/10/2023	2	60	10.9		141		12		0		0		1			13		310		166.5	
4/10/2023	3	60	11.0		138		12		0		0		1	1		13		310	310	164.5	165.7
4/10/2023	4	60	10.8		147		16		1		0		1			14		310		166.9	
4/10/2023	5	60	10.9		137		11		1		0		1			14		310		166.5	
4/10/2023	6	60	11.0		140		8		0		0		2			14		310		165.2	
4/10/2023	7	60	10.9		147		7		0		0		2	2		13	13	310	310	167.3	166.5
4/10/2023	8	60	11.0		137		3		30		91		2			13		310		166.3	
4/10/2023	9	60	10.9		139		8		55		85		2			13		310		167.0	
4/10/2023	10	60	10.9		140		8		59		86		3			13		310		167.0	
4/10/2023	11	60	10.9		149		21		50		59		1	2		13		310	310	166.1	166.6
4/10/2023	12	60	11.0		138		11		40		74		3			13		310		166.7	
4/10/2023	13	60	11.4		137		0		20		100		2			13		310		166.1	
4/10/2023	14	60	11.7		142		3		44		94		1			13		310		167.4	
4/10/2023	15	60	11.6		144		0		33		100		2	2		13	13	310	310	166.6	166.7
4/10/2023	16	60	11.3		139		0		24		100		2			13		310		166.3	
4/10/2023	17	60	11.2		141		0		25		100		2			14		310		166.1	
4/10/2023	18	60	11.3		138		0		26		100		1			14		310		165.9	
4/10/2023	19	60	11.3		139		0		26		100		1	1		13		310	310	166.9	166.3
4/10/2023	20	60	11.4		142		0		27		100		1			13		310		166.4	
4/10/2023	21	60	11.4		141		0		36		100		2			14		310		167.4	
4/10/2023	22	60	11.4		139		0		34		99		2			14		310		166.4	
4/10/2023	23	60	11.4		140		0		29		100		2	2		14	14	310	310	166.9	166.8

Average:  
Geometric Mean Average:

Limit:

<b>141</b>	<b>1</b>	<b>88</b>
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean	≥ 75% Removal Efficiency
<b>OR</b>		

see above
≤ 69 ppmc 4-HR Block Average

see above	see above	see above
≥ 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 10-Apr-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	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	IC	5	IC	1	1	1	1	1	1	2
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

**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 10-Apr-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	3	IBC	4	IBC	0	0	0	0	0	0	1
7	0	1	0	0	1	1	1	0	0	1	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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