



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



Date 5/8/22

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.
5/8/2022	0	60	10.0		163		17		51		67		5			13		308		169.4	
5/8/2022	1	60	10.2		150		9		65		86		7			13		298		165.1	
5/8/2022	2	60	10.2		161		19		73		74		6			13		294		164.7	
5/8/2022	3	60	10.0		167		17		44		61		6	6		14		313	303	168.2	166.8
5/8/2022	4	60	10.1		163		22		41		47		5			13		315		167.9	
5/8/2022	5	60	9.8		161		15		42		64		5			13		310		169.7	
5/8/2022	6	60	10.1		163		16		42		62		6			13		305		167.7	
5/8/2022	7	60	10.1		147		6		40		84		6	5		13	13	299	307	165.4	167.7
5/8/2022	8	60	10.0		155		8		56		85		5			14		298		169.1	
5/8/2022	9	60	10.1		164		10		45		78		6			13		302		168.6	
5/8/2022	10	60	10.2		162		14		40		65		5			13		307		168.0	
5/8/2022	11	60	10.2		162		6		32		83		5	5		13		303	303	166.2	168.0
5/8/2022	12	60	10.3		157		13		47		73		5			13		303		166.3	
5/8/2022	13	60	10.1		159		15		49		69		5			13		308		166.5	
5/8/2022	14	60	10.1		162		11		46		76		5			13		305		167.7	
5/8/2022	15	60	10.2		153		5		47		90		5	5		14	13	302	304	164.7	166.3
5/8/2022	16	60	10.0		149		3		38		92		5			14		304		168.0	
5/8/2022	17	60	10.1		160		3		40		91		5			14		300		167.1	
5/8/2022	18	60	10.1		166		11		43		75		5			14		303		167.5	
5/8/2022	19	60	10.3		164		6		27		76		5	5		14		303	303	166.1	167.2
5/8/2022	20	60	10.2		177		19		45		57		6			13		308		167.7	
5/8/2022	21	60	10.2		163		8		24		65		6			13		302		164.2	
5/8/2022	22	60	9.9		158		16		28		40		5			13		311		169.0	
5/8/2022	23	60	10.4		165		10		22		53		5	6		14	14	312	309	162.6	165.9

Average:  
Geometric Mean Average:

Limit:

160	10	OR	75
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 75% Removal Efficiency

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

**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 5/8/22

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.
5/8/2022	0	60	8.3		182		1		43		97		1			14		310		167.4	
5/8/2022	1	60	8.6		189		2		36		94		2			12		310		163.2	
5/8/2022	2	60	8.4		181		2		31		94		2			11		310		167.8	
5/8/2022	3	60	8.5		178		0		25		99		2	2		13		310	310	168.0	166.6
5/8/2022	4	60	8.6		175		0		27		98		2			14		310		165.7	
5/8/2022	5	60	8.5		178		1		29		95		1			14		310		167.9	
5/8/2022	6	60	8.5		183		3		37		92		1			14		310		166.9	
5/8/2022	7	60	8.5		181		3		38		91		1	1		14	13	310	310	167.8	167.1
5/8/2022	8	60	8.4		183		2		37		95		1			15		310		167.7	
5/8/2022	9	60	8.4		178		0		26		99		1			14		310		166.2	
5/8/2022	10	60	8.4		176		0		22		100		1			14		310		168.1	
5/8/2022	11	60	8.4		173		1		33		98		1	1		14		310	310	167.9	167.5
5/8/2022	12	60	8.5		170		2		44		95		0			13		310		167.8	
5/8/2022	13	60	8.4		170		2		43		95		0			11		309		169.1	
5/8/2022	14	60	8.4		177		1		37		97		0			14		310		166.9	
5/8/2022	15	60	8.3		176		1		37		97		0	0		16	14	310	310	167.9	168.0
5/8/2022	16	60	8.4		172		0		33		100		1			16		310		166.4	
5/8/2022	17	60	8.2		178		1		37		98		1			17		310		167.9	
5/8/2022	18	60	8.2		177		0		28		99		1			16		310		167.1	
5/8/2022	19	60	8.2		175		0		16		100		0	1		15		310	310	167.5	167.2
5/8/2022	20	60	8.3		175		1		31		98		1			15		310		166.7	
5/8/2022	21	60	8.2		180		0		19		100		1			14		310		166.0	
5/8/2022	22	60	8.4		177		0		17		100		1			15		310		166.7	
5/8/2022	23	60	8.2		173		0		21		99		0	1		15	15	310	310	167.5	166.7

Average:  
Geometric Mean Average:

Limit:

177	0
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

99
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

see above
≤ 12 8-HR. Block Average

lb/hr

see above
≤ 345 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 08-May-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	2
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 08-May-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	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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