



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



Date 3/12/22

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.
3/12/2022	0	60	10.2		200		25		95		74		6			15		309		164.3	
3/12/2022	1	60	10.1		196		22		89		76		4			15		309		164.3	
3/12/2022	2	60	9.9		198		16		58		72		5			16		310		165.8	
3/12/2022	3	60	10.1		199		19		66		71		4	5		16		310	309	164.8	164.8
3/12/2022	4	60	9.9		196		23		85		73		5			14		309		165.6	
3/12/2022	5	60	9.9		198		22		84		74		5			15		309		168.4	
3/12/2022	6	60	9.9		198		22		88		75		5			16		309		165.6	
3/12/2022	7	60	9.9		199		20		77		74		5	5		16	15	309	309	164.6	166.1
3/12/2022	8	60	9.8		194		19		69		72		4			17		309		166.9	
3/12/2022	9	60	9.9		197		19		64		71		4			15		309		165.5	
3/12/2022	10	60	10.0		197		19		65		71		4			15		309		164.6	
3/12/2022	11	60	10.0		197		24		91		74		4	4		16		309	309	164.3	165.3
3/12/2022	12	60	10.1		196		21		77		73		4			16		309		164.7	
3/12/2022	13	60	10.1		198		26		101		74		5			17		310		165.0	
3/12/2022	14	60	10.2		198		28		111		75		4			15		309		164.8	
3/12/2022	15	60	10.1		197		37		146		75		4	4		17	16	309	309	164.5	164.8
3/12/2022	16	60	10.2		196		30		122		75		4			15		309		165.5	
3/12/2022	17	60	10.1		197		23		89		74		4			15		310		164.6	
3/12/2022	18	60	10.1		198		20		81		75		4			15		308		165.5	
3/12/2022	19	60	10.0		199		14		76		81		4	4		16		302	307	164.8	165.1
3/12/2022	20	60	10.0		197		21		77		72		4			14		309		166.2	
3/12/2022	21	60	10.2		199		23		87		74		3			16		309		164.7	
3/12/2022	22	60	10.1		198		29		106		73		3			16		310		166.4	
3/12/2022	23	60	10.1		197		32		109		71		4	4		16	15	309	309	164.8	165.5

Average:  
Geometric Mean Average:

Limit:

197	23
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

74
≥ 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



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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.
3/12/2022	0	60	9.3		174		16		61		74		2			17		310		165.5	
3/12/2022	1	60	9.2		183		9		41		79		2			16		310		165.4	
3/12/2022	2	60	9.0		177		2		27		91		3			17		310		167.3	
3/12/2022	3	60	9.1		183		2		23		93		2	2		16		310	310	164.7	165.7
3/12/2022	4	60	9.0		173		4		32		88		2			17		307		164.7	
3/12/2022	5	60	9.2		184		5		30		83		1			16		304		165.2	
3/12/2022	6	60	9.0		186		19		75		75		2			16		306		165.3	
3/12/2022	7	60	8.9		183		18		55		68		2	2		16	16	310	307	166.1	165.3
3/12/2022	8	60	9.0		180		20		51		60		2			16		310		164.8	
3/12/2022	9	60	8.7		173		20		51		61		2			16		310		166.4	
3/12/2022	10	60	9.1		168		18		45		60		2			15		311		164.7	
3/12/2022	11	60	9.9		171		25		49		49		3	2		16		310	310	165.5	165.3
3/12/2022	12	60	9.5		161		18		61		70		3			16		309		165.0	
3/12/2022	13	60	9.4		173		29		101		71		1			17		311		166.0	
3/12/2022	14	60	9.3		173		27		107		75		1			17		309		165.6	
3/12/2022	15	60	9.4		180		26		93		72		2	2		16	16	315	311	165.1	165.4
3/12/2022	16	60	9.3		178		21		81		74		2			17		302		165.7	
3/12/2022	17	60	9.4		170		13		51		76		2			17		303		165.8	
3/12/2022	18	60	9.4		173		17		50		65		2			16		309		165.9	
3/12/2022	19	60	9.4		171		19		51		62		1	2		15		312	306	166.1	165.9
3/12/2022	20	60	9.5		167		19		53		65		1			16		310		165.8	
3/12/2022	21	60	9.5		167		21		55		61		2			16		303		167.1	
3/12/2022	22	60	9.5		168		21		53		60		3			15		308		165.6	
3/12/2022	23	60	9.6		169		23		66		66		2	2		15	16	307	307	165.0	165.9

Average:  
Geometric Mean Average:

Limit:

174	14
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

73
≥ 75% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

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



Date 12-Mar-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	1	2	2	2	2	2	2	1
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	5	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	1	1	2	2
13	1	1	1	1	1	2	2	2	2	2	1
14	1	1	1	2	2	2	2	2	2	2	1
15	2	2	2	2	1	1	2	2	2	1	1
16	2	2	2	1	2	2	2	2	2	2	1
17	2	2	2	2	2	1	1	2	2	1	1
18	2	2	2	2	2	2	2	2	2	2	2
19	2	2	2	1	1	2	1	1	1	2	1
20	1	1	1	1	1	1	1	1	1	1	1
21	1	1	2	2	2	2	2	2	2	2	1
22	2	2	2	2	2	2	2	2	2	2	2
23	2	2	2	2	2	2	2	2	2	2	2

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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 12-Mar-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	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	IBC	7	IBC	2	2	2	2	2	2	3
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

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