



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



Date 4/17/22

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.
4/17/2022	0	60	10.0		195		41		69		40		2			13		302		167.5	
4/17/2022	1	60	10.2		196		12		61		80		2			13		296		164.1	
4/17/2022	2	60	10.2		198		18		65		72		2			13		302		165.9	
4/17/2022	3	60	10.1		198		10		52		81		2	2		13		305	302	164.9	165.6
4/17/2022	4	60	10.2		194		30		51		41		4			13		311		168.6	
4/17/2022	5	60	10.2		194		22		51		57		3			13		304		166.5	
4/17/2022	6	60	10.3		198		17		46		63		3			13		304		165.9	
4/17/2022	7	60	10.1		193		20		62		67		3	3		13	13	307	306	165.9	166.7
4/17/2022	8	60	10.0		194		15		57		74		3			13		307		168.7	
4/17/2022	9	60	10.3		191		20		60		66		4			13		303		163.5	
4/17/2022	10	60	10.2		200		24		45		48		3			13		309		165.8	
4/17/2022	11	60	10.1		196		26		68		62		3	3		13		309	307	167.9	166.5
4/17/2022	12	60	10.4		199		22		51		57		3			13		306		165.0	
4/17/2022	13	60	10.2		196		23		48		53		3			13		308		164.3	
4/17/2022	14	60	10.3		194		24		54		56		3			13		307		165.6	
4/17/2022	15	60	10.1		197		33		120		73		4	3		13	13	309	307	164.4	164.8
4/17/2022	16	60	9.9		195		22		86		75		4			13		303		167.2	
4/17/2022	17	60	10.2		197		23		81		72		3			13		305		164.7	
4/17/2022	18	60	10.1		195		30		103		71		4			13		310		165.1	
4/17/2022	19	60	10.1		198		22		67		67		3	3		13		307	306	165.5	165.6
4/17/2022	20	60	10.0		199		24		57		59		3			13		312		166.3	
4/17/2022	21	60	10.1		198		27		57		53		2			13		316		166.1	
4/17/2022	22	60	10.3		200		22		74		70		3			13		303		164.8	
4/17/2022	23	60	10.1		193		23		63		64		2	3		13	13	312	311	165.6	165.7

Average: Geometric Mean Average:	196	22	<b>OR</b>	65	see above	see above	see above	see above			
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 75% 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 4/17/22

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.
4/17/2022	0	60	9.9		191		9		78		89		2			15		310		167.1	
4/17/2022	1	60	9.9		187		2		56		97		3			15		310		168.2	
4/17/2022	2	60	9.9		174		2		47		95		2			15		310		167.6	
4/17/2022	3	60	10.0		191		3		61		96		2	2		15		310	310	168.0	167.7
4/17/2022	4	60	9.9		195		1		50		99		4			15		310		166.8	
4/17/2022	5	60	10.0		179		2		59		96		3			13		310		167.6	
4/17/2022	6	60	10.3		183		1		51		97		3			14		310		166.7	
4/17/2022	7	60	10.2		197		0		47		100		4	4		10	14	310	310	166.5	166.9
4/17/2022	8	60	10.0		195		1		59		99		3			11		310		168.2	
4/17/2022	9	60	10.0		192		0		42		100		3			11		310		168.0	
4/17/2022	10	60	9.9		193		0		42		99		4			14		310		167.5	
4/17/2022	11	60	10.0		182		1		57		98		3	3		16		310	310	167.5	167.8
4/17/2022	12	60	10.0		188		1		59		99		3			17		310		166.8	
4/17/2022	13	60	10.0		186		1		61		99		2			15		310		166.6	
4/17/2022	14	60	10.0		183		1		59		99		2			15		310		165.5	
4/17/2022	15	60	10.0		193		20		130		84		3	3		14	14	310	310	165.2	166.0
4/17/2022	16	60	10.0		177		29		149		81		4			13		310		166.7	
4/17/2022	17	60	10.0		184		16		122		87		4			13		310		166.2	
4/17/2022	18	60	10.0		187		5		75		94		4			12		310		164.8	
4/17/2022	19	60	10.1		188		9		88		90		4	4		13		310	310	165.8	165.9
4/17/2022	20	60	10.0		196		3		59		95		3			14		310		164.6	
4/17/2022	21	60	10.2		189		4		52		92		2			14		310		163.0	
4/17/2022	22	60	10.3		195		8		78		90		1			14		310		165.4	
4/17/2022	23	60	10.3		180		2		50		97		2	2		14	13	310	310	165.9	164.7

Average:  
Geometric Mean Average:

Limit:

188	2	97
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean	≥ 75% Removal Efficiency

OR

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 17-Apr-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	6	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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I - Invalid                      C - Calibration                      F - Offline                      T - Out of Control                      ^ - Startup  
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Date 17-Apr-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

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