



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



Date 4/11/22

Wheel Plant Wheelabrator North Andover  
Unit 1 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.
4/11/2022	0	60	10.0		195		21		45		54		3			13		305		167.3	
4/11/2022	1	60	9.8		193		19		52		64		4			13		307		169.2	
4/11/2022	2	60	10.1		196		13		51		74		3			13		301		166.8	
4/11/2022	3	60	10.2		197		18		46		60		3	3		13		311	306	165.4	167.2
4/11/2022	4	60	10.1		196		22		47		54		4			13		312		169.2	
4/11/2022	5	60	10.3		193		20		56		65		4			13		303		161.2	
4/11/2022	6	60	10.2		196		19		41		55		4			13		312		166.8	
4/11/2022	7	60	10.4		187		16		77		79		6	4		13	13	303	307	157.8	163.7
4/11/2022	8	60	9.9		195		16		47		66		5			13		310		167.4	
4/11/2022	9	60	10.1		192		13		53		76		4			13		304		168.5	
4/11/2022	10	60	10.1		192		9		29		67		5			13		307		165.7	
4/11/2022	11	60	10.0		193		22		52		59		6	5		13		309	307	168.3	167.5
4/11/2022	12	60	10.1		199		23		50		55		5			13		314		168.9	
4/11/2022	13	60	10.3		199		24		43		45		4			13		308		166.5	
4/11/2022	14	60	10.0		198		13		23		44		5			13		312		165.7	
4/11/2022	15	60	10.0		198		19		38		51		5	5		13	13	307	310	165.4	166.6
4/11/2022	16	60	9.8		172		29		48		40		150			13		326		162.0	
4/11/2022	17	60	10.2		198		16		23		32		10			13		314		166.5	
4/11/2022	18	60	10.3		198		20		43		53		8			13		309		165.6	
4/11/2022	19	60	10.4		198		15		29		48		7	44		13		310	314	166.5	165.1
4/11/2022	20	60	10.1		197		20		33		41		7			13		313		168.8	
4/11/2022	21	60	10.2		198		13		24		48		6			13		313		169.4	
4/11/2022	22	60	10.5		198		11		20		43		6			13		312		168.0	
4/11/2022	23	60	10.4		198		14		20		32		7	6		13	13	309	312	165.5	167.9

Average: Geometric Mean Average:	195	17	<b>OR</b>	56	see above	see above	see above	see above
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 75% 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

**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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Date 4/11/22

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.
4/11/2022	0	60	9.8		194		15		79		81		3			13		310		166.5	
4/11/2022	1	60	9.8		187		11		73		84		3			15		310		166.3	
4/11/2022	2	60	9.6		196		23		102		77		3			14		310		168.7	
4/11/2022	3	60	9.8		192		15		74		80		3	3		13		310	310	165.5	166.7
4/11/2022	4	60	9.6		195		8		60		87		2			13		310		168.0	
4/11/2022	5	60	9.8		180		8		66		87		1			13		310		164.2	
4/11/2022	6	60	9.7		188		10		56		82		3			14		310		165.9	
4/11/2022	7	60	9.3		196		1		37		96		2	2		15	14	310	310	165.0	165.8
4/11/2022	8	60	9.8		193		1		29		98		2			15		310		167.2	
4/11/2022	9	60	10.1		187		1		36		97		2			15		310		167.9	
4/11/2022	10	60	10.3		186		1		34		98		1			14		310		165.4	
4/11/2022	11	60	10.2		184		5		44		89		1	2		12		310	310	167.7	167.0
4/11/2022	12	60	10.5		183		15		91		84		3			13		310		160.6	
4/11/2022	13	60	9.7		183		7		54		87		3			12		310		168.0	
4/11/2022	14	60	9.7		193		2		40		95		3			12		310		166.9	
4/11/2022	15	60	9.6		190		2		34		95		3	3		13	13	310	310	167.7	165.8
4/11/2022	16	60	9.7		183		2		38		96		3			15		310		167.9	
4/11/2022	17	60	9.7		198		2		47		95		4			14		310		167.3	
4/11/2022	18	60	9.7		190		2		39		94		2			14		310		168.4	
4/11/2022	19	60	9.6		188		2		41		96		3	3		15		310	310	168.3	168.0
4/11/2022	20	60	9.8		183		2		43		96		2			15		309		167.7	
4/11/2022	21	60	9.8		189		3		37		93		4			15		310		166.0	
4/11/2022	22	60	9.7		190		2		34		94		2			15		310		167.8	
4/11/2022	23	60	9.7		189		1		26		96		3	3		15	15	310	310	167.3	167.2

Average:  
Geometric Mean Average:

Limit:

189	3
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

93
≥ 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 11-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	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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Date 11-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.

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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	1	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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