



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



Date 5/29/22

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.
5/29/2022	0	60	10.7		196		36		89		60		4			13		304		165.6	
5/29/2022	1	60	10.6		195		11		59		81		3			13		304		164.6	
5/29/2022	2	60	10.7		196		23		74		69		3			13		304		164.1	
5/29/2022	3	60	10.5		198		27		70		62		3	3		13		305	304	166.0	165.1
5/29/2022	4	60	10.7		194		23		69		66		3			13		304		160.5	
5/29/2022	5	60	10.6		199		26		70		63		3			13		304		165.4	
5/29/2022	6	60	10.5		193		24		62		61		2			13		304		166.9	
5/29/2022	7	60	10.6		193		19		64		70		3	3		13	13	304	304	163.0	164.0
5/29/2022	8	60	10.5		179		19		72		74		3			14		304		165.6	
5/29/2022	9	60	10.5		188		30		84		65		3			13		304		168.9	
5/29/2022	10	60	10.8		198		29		82		65		2			13		304		164.1	
5/29/2022	11	60	10.6		194		17		68		75		2	3		14		305	304	164.6	165.8
5/29/2022	12	60	10.5		199		13		59		78		2			14		305		169.7	
5/29/2022	13	60	10.9		193		28		75		63		3			14		304		165.2	
5/29/2022	14	60	10.9		196		36		72		49		4			13		304		163.2	
5/29/2022	15	60	10.9		197		23		62		62		3	3		14	13	304	304	164.3	165.6
5/29/2022	16	60	10.8		196		46		73		37		3			14		304		167.8	
5/29/2022	17	60	10.9		194		21		70		70		3			14		304		161.4	
5/29/2022	18	60	10.8		201		32		94		66		3			14		304		163.7	
5/29/2022	19	60	10.7		195		34		95		65		3	3		13		304	304	164.3	164.3
5/29/2022	20	60	10.8		194		24		78		69		3			13		304		164.3	
5/29/2022	21	60	10.7		196		29		85		66		3			13		304		163.9	
5/29/2022	22	60	10.6		196		45		110		59		3			13		304		166.9	
5/29/2022	23	60	10.6		196		34		90		62		3	3		14	13	304	304	166.6	165.4

Average: Geometric Mean Average:	195	26	<b>OR</b>	66	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 5/29/22

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.
5/29/2022	0	60	10.8		192		11		62		82		3			14		310		163.8	
5/29/2022	1	60	10.7		197		9		52		82		1			13		310		163.6	
5/29/2022	2	60	10.5		198		5		43		89		1			14		310		165.6	
5/29/2022	3	60	10.7		196		4		41		90		1	2		13		310	310	164.9	164.5
5/29/2022	4	60	10.0		197		5		51		91		3			11		310		172.1	
5/29/2022	5	60	11.2		195		7		51		87		3			13		310		157.9	
5/29/2022	6	60	10.7		193		4		45		91		2			14		310		163.4	
5/29/2022	7	60	10.6		189		5		48		90		2	2		13	13	310	310	166.1	164.9
5/29/2022	8	60	10.8		194		8		54		84		2			12		310		168.8	
5/29/2022	9	60	10.2		187		5		49		91		1			12		310		169.2	
5/29/2022	10	60	10.9		195		7		52		87		2			13		310		165.0	
5/29/2022	11	60	10.5		183		5		50		89		2	2		12		310	310	165.6	167.2
5/29/2022	12	60	10.0		177		4		52		93		2			12		310		168.9	
5/29/2022	13	60	11.4		196		8		46		82		8			13		310		156.0	
5/29/2022	14	60	10.0		180		4		43		91		2			14		311		167.6	
5/29/2022	15	60	10.8		189		6		41		86		2	4		15	13	310	310	166.0	164.6
5/29/2022	16	60	10.5		189		11		61		82		2			16		310		169.3	
5/29/2022	17	60	10.8		183		9		59		85		3			16		310		163.8	
5/29/2022	18	60	10.3		195		18		82		78		2			15		311		170.2	
5/29/2022	19	60	10.4		188		15		72		79		2	3		15		310	310	166.6	167.5
5/29/2022	20	60	10.4		181		5		54		92		2			15		310		166.1	
5/29/2022	21	60	10.5		189		4		55		92		1			15		310		166.4	
5/29/2022	22	60	10.4		187		14		77		82		3			15		310		171.5	
5/29/2022	23	60	10.6		185		12		73		84		2	2		14	15	310	310	164.7	167.2

Average: Geometric Mean Average:	190	7	<b>OR</b>	87	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

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



Date 29-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	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

**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 29-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	5	IBC	1	1	0	0	0	0	1
7	1		0		1	1	1	1	1	1	0
8	1		1		1	1	1	1	1	1	1
9	1		1		1	1	1	1	1	1	1
10	1		1		1	1	0	0	1	0	0
11	0		1		1	1	1	1	1	1	0
12	1		0		0	0	1	0	1	1	0
13	1		1		1	1	1	1	1	0	1
14	1		1		1	1	1	1	1	1	1
15	1		1		1	1	1	1	1	1	1
16	1		1		1	1	1	1	1	1	1
17	1		1		1	1	1	1	1	1	1
18	1		1		1	1	1	1	1	1	1
19	1		1		1	1	1	1	1	1	1
20	1		1		1	1	1	1	1	1	1
21	1		1		1	1	1	1	0	1	0
22	0		1		1	1	1	1	1	1	1
23	1		1		1	0	1	1	1	1	0

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