



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



Date 6/17/22

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.
6/17/2022	0	60	10.0		195		15		56		72		2			13		305		162.2	
6/17/2022	1	60	9.9		198		16		62		74		2			13		304		164.3	
6/17/2022	2	60	10.0		191		20		74		73		3			14		305		165.3	
6/17/2022	3	60	10.3		199		21		69		70		3	3		13		304	304	166.4	164.6
6/17/2022	4	60	10.3		198		25		89		72		4			14		305		165.9	
6/17/2022	5	60	10.0		200		11		55		81		4			13		304		166.6	
6/17/2022	6	60	10.0		194		7		46		85		4			14		304		164.3	
6/17/2022	7	60	10.1		187		2		38		94		4	4		13	14	304	304	163.3	165.0
6/17/2022	8	60	10.3		189		7		49		87		3			14		304		166.9	
6/17/2022	9	60	10.5		192		3		34		92		3			14		304		168.3	
6/17/2022	10	60	10.4		193		2		37		93		4			14		305		167.2	
6/17/2022	11	60	10.3		198		2		41		96		4	3		13		304	304	170.2	168.1
6/17/2022	12	60	9.9		196		2		51		96		5			13		305		168.9	
6/17/2022	13	60	9.8		196		2		48		95		5			13		305		171.8	
6/17/2022	14	60	10.0		198		4		54		93		4			13		304		168.3	
6/17/2022	15	60	10.2		200		2		41		96		4	5		13	13	304	304	166.3	168.8
6/17/2022	16	60	10.1		198		2		43		95		4			13		304		167.9	
6/17/2022	17	60	10.3		199		1		41		97		3			13		304		167.2	
6/17/2022	18	60	10.1		199		3		47		94		3			13		305		168.1	
6/17/2022	19	60	10.1		197		1		43		97		3	3		13		304	304	167.0	167.5
6/17/2022	20	60	10.0		197		2		53		96		3			13		305		167.5	
6/17/2022	21	60	10.3		197		5		53		91		3			13		304		168.0	
6/17/2022	22	60	10.2		189		1		38		96		3			13		305		167.0	
6/17/2022	23	60	10.2		186		1		46		98		4	3		13	13	304	304	166.8	167.3

Average: Geometric Mean Average:	195	4	92	OR	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	≤ 12 8-HR. Block Average	≤ 345 °F 4-HR Block Average	≤ 173 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 6/17/22

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.
6/17/2022	0	60	10.1		194		13		14		4		2			14		314		166.3	
6/17/2022	1	60	10.2		195		21		23		9		3			14		314		164.7	
6/17/2022	2	60	10.1		191		19		19		2		3			14		314		165.9	
6/17/2022	3	60	10.2		188		15		22		31		3	3		14		308	313	165.3	165.5
6/17/2022	4	60	10.2		192		18		31		43		3			13		301		164.1	
6/17/2022	5	60	10.2		190		13		22		43		3			14		308		165.6	
6/17/2022	6	60	10.2		190		11		15		29		3			15		316		165.7	
6/17/2022	7	60	10.3		183		6		8		26		2	3		14	14	314	310	166.5	165.5
6/17/2022	8	60	9.9		180		4		5		24		3			13		316		173.6	
6/17/2022	9	60	10.7		183		0		6		99		3			13		312		165.0	
6/17/2022	10	60	10.5		189		0		17		100		3			13		308		164.4	
6/17/2022	11	60	10.3		195		0		20		98		4	3		13		318	313	167.5	167.6
6/17/2022	12	60	10.1		198		0		12		98		3			13		317		164.1	
6/17/2022	13	60	10.0		197		9		20		57		2			13		309		170.5	
6/17/2022	14	60	9.9		193		0		17		100		2			14		306		167.8	
6/17/2022	15	60	10.1		191		0		13		100		2	2		13	13	301	308	168.3	167.7
6/17/2022	16	60	10.1		195		0		5		100		3			13		306		167.8	
6/17/2022	17	60	10.2		196		0		5		100		2			13		309		168.6	
6/17/2022	18	60	10.1		194		0		6		100		2			13		310		167.8	
6/17/2022	19	60	10.0		197		0		3		100		2	2		13		311	309	167.4	167.9
6/17/2022	20	60	10.1		195		0		4		100		1			13		309		168.1	
6/17/2022	21	60	10.2		188		0		3		100		2			13		306		167.7	
6/17/2022	22	60	10.1		175		0		2		100		1			14		301		169.6	
6/17/2022	23	60	9.9		189		0		3		98		1	1		13	13	303	305	167.9	168.3

Average: Geometric Mean Average:	191	1	<b>OR</b>	97	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

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



Date 17-Jun-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 17-Jun-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	1	1	1	1	1	1	1	1	1	1	1
1	1	1	0	0	1	1	1	1	1	1	1
2	1	1	1	0	1	0	1	1	0	0	0
3	1	1	1	1	1	1	1	0	0	1	0
4	0	1	0	0	0	1	0	0	1	1	0
5	0	0	0	0	1	1	1	0	1	1	0
6	2	IBC	5	IBC	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1
13	1	1	0	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	0	0	1	1
16	0	0	1	1	1	0	1	1	1	0	0
17	1	1	1	1	1	0	1	1	1	0	1
18	1	0	1	1	1	1	1	1	0	1	1
19	1	0	1	1	1	1	1	0	0	1	0
20	1	0	0	1	1	1	1	1	1	1	1
21	1	0	0	1	0	0	0	1	1	0	0
22	1	1	0	0	0	0	0	0	0	0	0
23	0	1	1	1	0	1	1	0	0	1	0

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