



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



Date 5/9/22

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.
5/9/2022	0	60	10.0		148		11		31		64		6			13		305		166.2	
5/9/2022	1	60	10.2		161		7		26		73		5			13		303		165.7	
5/9/2022	2	60	10.1		159		8		35		78		5			13		301		164.5	
5/9/2022	3	60	10.1		163		7		27		73		5	5		13		305	304	166.3	165.7
5/9/2022	4	60	10.0		154		10		29		67		5			13		304		163.4	
5/9/2022	5	60	10.0		157		15		33		55		6			13		312		167.8	
5/9/2022	6	60	9.9		163		12		30		61		6			13		311		165.6	
5/9/2022	7	60	9.9		164		48		123		61		7	6		14	13	318	311	167.2	166.0
5/9/2022	8	60	10.2		144		5		15		70		10			13		308		165.5	
5/9/2022	9	60	10.1		149		2		14		82		10			13		312		167.1	
5/9/2022	10	60	10.3		156		3		16		82		8			13		302		166.7	
5/9/2022	11	60	10.1		162		8		23		65		8	9		14		308	307	167.1	166.6
5/9/2022	12	60	10.2		163		7		19		64		6			13		310		166.5	
5/9/2022	13	60	10.3		172		8		16		53		9			13		307		166.9	
5/9/2022	14	60	10.0		164		4		10		60		9			13		314		167.6	
5/9/2022	15	60	10.1		166		3		66		96		9	8		13	13	315	312	167.1	167.0
5/9/2022	16	60	7.8	IBCMT	132	IBCMT	28	IBCMT	30		6	IBCMT	169	IBCMT		13		308		165.2	
5/9/2022	17	60	10.6	IT	179	IT	18	IT	63		72	IBT	10	IT		13		302		165.5	
5/9/2022	18	60	10.5	IT	186	IT	11	IT	27		59	IBT	9	IT		14		313		166.9	
5/9/2022	19	60	10.2	IT	183	IT	11	IT	32		65	IBT	8	IT	49	IBCMT	15	312	309	167.7	166.3
5/9/2022	20	60	10.2	IT	183	IT	21	IT	56		62	IBT	8	IT		13		313		168.6	
5/9/2022	21	60	10.1	IT	177	IT	6	IT	18		70	IBT	8	IT		13		315		168.9	
5/9/2022	22	60	10.0	IT	167	IT	4	IT	16		76	IBT	8	IT		14		313		167.3	
5/9/2022	23	60	10.0	IT	171	IT	9	IT	28		69	IBT	8	IT	8	IT	14	316	314	168.2	168.2

Average:  
Geometric Mean Average:

Limit:

159	7
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

72
≥ 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



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



Date 5/9/22

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.
5/9/2022	0	60	8.3		173		1		32		96		0			14		310		167.5	
5/9/2022	1	60	8.2		175		1		33		96		1			16		310		170.3	
5/9/2022	2	60	8.2		170		1		29		98		0			13		310		167.6	
5/9/2022	3	60	8.3		173		0		23		99		0	0		14		310	310	167.2	168.2
5/9/2022	4	60	8.1		169		1		23		98		1			15		310		167.4	
5/9/2022	5	60	8.5		175		1		27		97		0			15		310		167.4	
5/9/2022	6	60	8.1		173		1		23		98		0			15		310		166.9	
5/9/2022	7	60	8.0		182		1		27		96		1	1		15	15	310	310	160.1	165.4
5/9/2022	8	60	8.0		166		1		16		96		1			16		310		168.3	
5/9/2022	9	60	8.1		183		0		8		100		2			16		310		163.4	
5/9/2022	10	60	8.2		192		0		19		99		1			14		310		167.0	
5/9/2022	11	60	8.1		173		0		11		98		2	1		14		310	310	167.8	166.6
5/9/2022	12	60	7.9		177		0		12		100		1			14		310		168.7	
5/9/2022	13	60	8.3	IBM	187	IBM	0	IBM	19		99	IBM	1	IBM		14		310		167.6	
5/9/2022	14	60	14.0	IBM	64	IBM	31	IBM	17		0	IBM	26	IBM		14		310		167.5	
5/9/2022	15	60	10.0	IBCMT	134	IBCMT	15	IBCMT	6		0	IBCMT	176	IBCMT	1	15	14	310	310	167.6	167.9
5/9/2022	16	60	9.5	IT	198	IT	1	IT	9		88	IBT	2	IT		12		310		167.6	
5/9/2022	17	60	9.7	IT	196	IT	1	IT	12		91	IBT	2	IT		13		310		167.5	
5/9/2022	18	60	9.6	IT	196	IT	0	IT	7		93	IBT	2	IT		14		310		168.3	
5/9/2022	19	60	9.7	IT	198	IT	0	IT	5		94	IBT	1	IT	2	14		310	310	167.5	167.8
5/9/2022	20	60	9.7	IT	193	IT	0	IT	5		92	IBT	2	IT		14		310		167.6	
5/9/2022	21	60	9.9	IT	198	IT	1	IT	14		95	IBT	1	IT		14		310		168.1	
5/9/2022	22	60	9.9	IT	197	IT	1	IT	20		96	IBT	2	IT		16		310		166.7	
5/9/2022	23	60	9.7	IT	197	IT	0	IT	12		96	IBT	1	IT	2	14	14	310	310	168.0	167.6

Average: Geometric Mean Average:	175	0	<b>OR</b>	99	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 09-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	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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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 09-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	4	IBC	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0

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