



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



Date 5/16/22

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.
5/16/2022	0	60	10.1		156		7		31		77		6			13		310		163.9	
5/16/2022	1	60	10.0		153		8		34		76		6			14		306		164.0	
5/16/2022	2	60	10.1		154		8		32		75		6			14		306		162.4	
5/16/2022	3	60	9.8		155		16		36		56		6	6		13		315	309	167.4	164.4
5/16/2022	4	60	9.9		156		14		35		59		6			13		313		166.5	
5/16/2022	5	60	10.0		161		6		27		76		7			13		309		165.2	
5/16/2022	6	60	10.0		166		9		22		61		8			14		311		166.1	
5/16/2022	7	60	10.0		151		7		25		72		8	7		13	14	310	311	165.5	165.8
5/16/2022	8	60	9.9		154		1		15		91		9			13		311		164.8	
5/16/2022	9	60	10.1		148		1		13		90		8			13		313		165.3	
5/16/2022	10	60	10.1		163		8		25		66		9			14		312		165.1	
5/16/2022	11	60	10.1		177		11		25		57		7	8		13		304	310	165.5	165.2
5/16/2022	12	60	9.9		168		13		26		49		9			14		313		165.7	
5/16/2022	13	60	10.2		174		15		31		54		5			13		303		168.0	
5/16/2022	14	60	9.6		162		12		24		51		9			13		318		167.6	
5/16/2022	15	60	9.7		162		6		20		70		9	8		14	14	317	313	166.4	166.9
5/16/2022	16	60	9.7		160		4		35		88		8			13		303		165.4	
5/16/2022	17	60	9.7		149		2		26		92		10			14		300		165.2	
5/16/2022	18	60	9.7		157		3		25		88		9			14		303		163.7	
5/16/2022	19	60	9.7		152		9		33		74		8	9		13		308	303	166.1	165.1
5/16/2022	20	60	9.6		157		8		30		72		8			13		310		164.0	
5/16/2022	21	60	9.7		148		6		20		72		8			14		315		163.8	
5/16/2022	22	60	9.7		151		6		22		71		8			14		305		163.5	
5/16/2022	23	60	9.8		161		10		20		50		7	8		14	14	316	311	163.1	163.6

Average:  
Geometric Mean Average:

Limit:

158	7
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

74
≥ 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



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Date 5/16/22

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.
5/16/2022	0	60	9.8		186		5		37	IBM	86	IBM	1			14		310		171.0	
5/16/2022	1	60	10.0		189		2		28	IBM	92	IBM	1			14		310		163.5	
5/16/2022	2	60	9.8		187		4		29	IBM	87	IBM	1			15		310		167.0	
5/16/2022	3	60	10.0		190		6		34	IBM	82	IBCM	1	1		14		310	310	166.7	167.1
5/16/2022	4	60	10.1		189		3		28	IBM	88	IBCM	3			14		310		165.9	
5/16/2022	5	60	10.0		189		4		54	IBCM	93	IBCM	2			12		310		166.6	
5/16/2022	6	60	10.2		189		5		26	IBM	81	IBM	3			14		310		166.1	
5/16/2022	7	60	10.1		194		3		25	IBM	87	IBM	3	3		15	14	310	310	165.2	165.9
5/16/2022	8	60	10.2		199		2		23	IBM	89	IBM	3			15		310		158.6	
5/16/2022	9	60	9.9		180		7		36	IBM	81	IBM	104			14		310		167.3	
5/16/2022	10	60	9.9		192		13		52	IBM	75	IBM	5			14		310		162.4	
5/16/2022	11	60	9.7		186		19		70	IBM	73	IBM	5	29		14		310	310	165.6	163.5
5/16/2022	12	60	9.6		189		2		22	IBM	90	IBM	4			14		310		162.4	
5/16/2022	13	60	10.0		188		0		15	IBCM	98	IBCM	4			14		310		158.4	
5/16/2022	14	60	9.8		195		1		24		95		3			14		310		158.8	
5/16/2022	15	60	9.6		194		1		15		96		3	3		14	14	310	310	163.9	160.9
5/16/2022	16	60	9.7		191		2		27		91		2			14		310		166.3	
5/16/2022	17	60	9.8		191		4		32		87		2			14		310		164.4	
5/16/2022	18	60	9.7		192		1		19		94		3			14		310		166.1	
5/16/2022	19	60	9.7		186		1		22		95		2	2		14		310	310	165.6	165.6
5/16/2022	20	60	9.8		184		2		29		92		2			14		310		164.9	
5/16/2022	21	60	9.7		188		3		25		88		2			14		310		164.6	
5/16/2022	22	60	9.7		193		1		15		92		3			14		310		164.6	
5/16/2022	23	60	9.7		189		2		17		90		2	2		14	14	310	310	164.4	164.6

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 ppmc 4-HR Block Average

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



Date 16-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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 B - Bad                            M - Maintenance                      P - Purge                            E - Excluded                            \* - Shutdown



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



Date 16-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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