



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



Date 5/3/22

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.
5/3/2022	0	60	10.0		186		18		31		44		6			13		309		168.6	
5/3/2022	1	60	10.2		172		11		38		70		6			13		304		166.2	
5/3/2022	2	60	10.4		177		13		29		57		6			13		304		165.7	
5/3/2022	3	60	10.3		177		20		39		48		6	6		13		306	306	165.1	166.4
5/3/2022	4	60	10.2		173		16		36		56		6			13		297		166.1	
5/3/2022	5	60	10.0		173		16		29		43		6			13		301		168.4	
5/3/2022	6	60	10.1		160		6		18		66		6			13		300		167.8	
5/3/2022	7	60	10.1		165		10		27		64		6	6		13	13	298	299	167.2	167.4
5/3/2022	8	60	10.0		165		8		20		59		6			13		306		169.1	
5/3/2022	9	60	10.1		163		8		31		74		7			13		303		168.5	
5/3/2022	10	60	10.2		164		5		27		80		6			13		298		168.6	
5/3/2022	11	60	10.2		165		14		47		70		6	6		13		300	302	167.5	168.4
5/3/2022	12	60	10.1		157		12		28		59		6			13		304		167.4	
5/3/2022	13	60	10.1		159		14		26		46		6			13		304		168.4	
5/3/2022	14	60	10.3		161		11		24		53		6			13		304		165.8	
5/3/2022	15	60	10.1		164		9		30		69		6	6		13	13	309	305	167.7	167.3
5/3/2022	16	60	10.2		157		6		35		82		7			13		307		167.0	
5/3/2022	17	60	10.4		162		17		85		80		7			13		299		165.3	
5/3/2022	18	60	10.3		169		19		60		68		5			13		308		168.3	
5/3/2022	19	60	10.2		169		18		62		72		5	6		13		306	305	166.2	166.7
5/3/2022	20	60	10.4		166		18		54		66		5			13		308		164.8	
5/3/2022	21	60	10.2		167		26		101		74		6			13		310		165.7	
5/3/2022	22	60	10.1		164		22		78		72		5			13		310		167.4	
5/3/2022	23	60	9.9		162		13		63		80		6	6		13	13	311	310	165.2	165.8

Average: Geometric Mean Average:	167	13	<b>OR</b>	67	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



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



Date 5/3/22

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.
5/3/2022	0	60	9.7		196		1		47		97		1			14		310		167.4	
5/3/2022	1	60	9.7		195		1		63		99		3			13		310		167.7	
5/3/2022	2	60	9.7		194		1		40		98		2			14		310		167.4	
5/3/2022	3	60	9.7		196		0		47		100		4	3		13		310	310	167.5	167.5
5/3/2022	4	60	9.8		190		1		35		96		8			13		310		167.3	
5/3/2022	5	60	9.8		195		1		37		98		3			14		310		168.1	
5/3/2022	6	60	9.9		180		0		27		99		5			14		310		167.4	
5/3/2022	7	60	9.7		194		0		42		100		1	4		14	14	310	310	167.3	167.5
5/3/2022	8	60	9.7		195		1		31		97		2			14		310		167.5	
5/3/2022	9	60	9.8		192		0		39		100		1			15		310		166.9	
5/3/2022	10	60	10.1	IM	195	IM	0	IM	51		100	IBM	4	IM		14		310		168.0	
5/3/2022	11	60	8.1	IBCM	94	IBCM	27	IBCM	47		41	IBCM	332	IBCM	2			310	310	167.4	167.5
5/3/2022	12	60	10.3		198		16		82		81		1			12		310		167.4	
5/3/2022	13	60	10.4		195		15		70		78		1			12		310		167.7	
5/3/2022	14	60	10.3		196		9		50		81		1			13		310		167.7	
5/3/2022	15	60	10.2		193		1		40		96		1	1		14	14	309	310	167.5	167.6
5/3/2022	16	60	10.2		198		3		53		94		1			14		310		167.8	
5/3/2022	17	60	10.5		191		30		137		78		1			15		310		167.3	
5/3/2022	18	60	10.2		196		2		57		96		0			14		310		167.6	
5/3/2022	19	60	10.2		193		5		68		93		1	1		15		310	310	167.7	167.6
5/3/2022	20	60	10.3		190		6		65		91		0			15		310		167.9	
5/3/2022	21	60	10.2		195		6		71		91		0			15		310		168.1	
5/3/2022	22	60	10.3		195		5		70		93		0			15		310		166.7	
5/3/2022	23	60	10.0		195		3		73		96		1	0		15	15	310	310	167.8	167.6

Average: Geometric Mean Average:	194	2	<b>OR</b>	98	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 03-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 03-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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