



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



Date 4/10/22

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.
4/10/2022	0	60	10.0		196		27		68		61		4			13		311		164.7	
4/10/2022	1	60	9.9		195		19		47		59		4			13		303		168.8	
4/10/2022	2	60	10.0		192		17		52		68		4			13		299		164.7	
4/10/2022	3	60	9.7		198		21		60		65		4	4		13		306	305	168.5	166.7
4/10/2022	4	60	10.1		193		23		54		58		4			13		310		166.4	
4/10/2022	5	60	9.9		197		21		48		57		4			13		304		165.3	
4/10/2022	6	60	9.8		195		22		51		57		4			13		307		166.2	
4/10/2022	7	60	9.8		191		15		46		68		5	4		13	13	306	307	166.7	166.2
4/10/2022	8	60	9.9		200		21		56		63		4			13		306		166.7	
4/10/2022	9	60	9.9		198		24		54		56		4			13		308		167.3	
4/10/2022	10	60	10.1		195		21		50		58		3			13		307		163.1	
4/10/2022	11	60	10.0		198		24		48		50		4	4		13		311	308	166.9	166.0
4/10/2022	12	60	10.1		194		20		41		51		3			13		312		166.3	
4/10/2022	13	60	10.2		194		19		44		56		3			13		307		168.3	
4/10/2022	14	60	10.0		192		22		47		53		4			13		309		163.2	
4/10/2022	15	60	9.9		197		17		33		49		4	3		13	13	313	310	166.7	166.1
4/10/2022	16	60	9.9		191		11		34		67		4			13		311		167.5	
4/10/2022	17	60	10.1		195		14		54		75		3			13		298		165.4	
4/10/2022	18	60	10.0		198		22		68		68		4			13		312		167.7	
4/10/2022	19	60	10.0		194		21		63		67		4	4		13		308	307	168.2	167.2
4/10/2022	20	60	10.3		193		18		47		61		3			13		303		162.5	
4/10/2022	21	60	9.9		197		19		46		58		4			13		311		165.8	
4/10/2022	22	60	9.9		194		21		46		55		4			13		310		166.3	
4/10/2022	23	60	10.0		198		18		40		56		4	4		13	13	310	308	166.6	165.3

Average: Geometric Mean Average:	195	19	OR	60	see above	see above	see above	
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean	OR	≥ 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 4/10/22

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.
4/10/2022	0	60	9.7		199		13		78		83		2			13		310		167.8	
4/10/2022	1	60	9.5		188		10		72		87		2			13		310		167.9	
4/10/2022	2	60	9.5		190		13		80		83		1			13		310		168.9	
4/10/2022	3	60	9.5		187		17		83		80		1	I		14		310	310	167.2	168.0
4/10/2022	4	60	9.6		184		7		60		88		4			13		310		168.1	
4/10/2022	5	60	9.8		188		8		61		87		3			10		310		167.3	
4/10/2022	6	60	9.7		195		11		70		84		3			12		310		167.7	
4/10/2022	7	60	9.8		185		7		55		88		4	I		13	13	310	310	166.8	167.5
4/10/2022	8	60	9.6		184		6		62		90		3			13		310		167.8	
4/10/2022	9	60	9.7		186		9		75		88		3			13		310		167.7	
4/10/2022	10	60	9.8		184		7		69		90		3			12		310		165.0	
4/10/2022	11	60	9.6		194		6		66		90		3	I		14		310	310	168.6	167.3
4/10/2022	12	60	9.8		179		7		62		89		3			12		310		168.3	
4/10/2022	13	60	9.9		184		12		79		85		10			13		310		169.0	
4/10/2022	14	60	9.9		190		7		63		89		3			12		310		166.7	
4/10/2022	15	60	9.9		194		7		60		88		3	I		13	13	310	310	166.0	167.5
4/10/2022	16	60	9.8		194		14		80		82		4			13		310		168.0	
4/10/2022	17	60	10.0		190		9		69		87		4			13		310		167.5	
4/10/2022	18	60	10.1		186		11		76		85		3			13		310		167.7	
4/10/2022	19	60	9.8		193		13		84		84		3	I		13		310	310	167.8	167.8
4/10/2022	20	60	10.0		183		15		87		83		3			13		310		170.7	
4/10/2022	21	60	10.1		192		18		80		77		3			13		310		168.3	
4/10/2022	22	60	10.0		194		11		66		83		3			13		310		167.9	
4/10/2022	23	60	9.9		186		13		70		82		2	I		13	13	310	310	169.7	169.1

Average: Geometric Mean Average:	189	10	OR	86	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 10-Apr-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

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 10-Apr-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	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	IBC	6	IBC	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
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