



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



Date 4/18/22

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.
4/18/2022	0	60	10.2		187		20		71		72		3			13		305		163.0	
4/18/2022	1	60	10.2		196		21		57		64		3			13		306		166.4	
4/18/2022	2	60	10.3		192		22		59		63		2			13		303		165.4	
4/18/2022	3	60	10.0		196		22		55		59		3	3		13		307	305	165.8	165.1
4/18/2022	4	60	10.1		190		24		52		55		2			13		311		167.0	
4/18/2022	5	60	10.1		197		20		32		36		2			13		307		166.0	
4/18/2022	6	60	10.1		196		22		27		19		2			13		308		164.7	
4/18/2022	7	60	10.2		178		13		28		52		2	2		13	13	300	307	165.1	165.7
4/18/2022	8	60	10.1		182		21		32		33		1			13		302		166.0	
4/18/2022	9	60	10.1		195		23		56		59		2			13		306		163.3	
4/18/2022	10	60	10.0		195		26		78		67		3			13		306		165.2	
4/18/2022	11	60	10.0		191		17		63		73		2	2		13		300	303	166.1	165.2
4/18/2022	12	60	10.2		201		15		31		51		1			13		300		168.4	
4/18/2022	13	60	9.9		192		27		83		68		4			13		309		166.3	
4/18/2022	14	60	9.9		199		33		133		75		3			13		311		164.2	
4/18/2022	15	60	10.1		194		21		63		67		3	3		13	13	306	306	164.6	165.9
4/18/2022	16	60	9.8		186		17		63		73		4			13		305		163.7	
4/18/2022	17	60	9.9		199		22		67		67		3			13		302		165.9	
4/18/2022	18	60	10.0		193		18		45		59		3			13		305		165.2	
4/18/2022	19	60	10.0		194		21		54		61		1	3		13		306	305	166.7	165.4
4/18/2022	20	60	10.0		194		25		76		67		2			13		310		164.8	
4/18/2022	21	60	9.8		198		23		64		63		2			13		310		165.3	
4/18/2022	22	60	9.8		195		19		52		63		2			13		309		165.0	
4/18/2022	23	60	9.8		189		11		41		73		2	2		13	13	300	307	165.0	165.0

Average: Geometric Mean Average:	193	20	OR	62	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 4/18/22

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.
4/18/2022	0	60	10.4		195		2		60		96		3			15		310		164.5	
4/18/2022	1	60	10.3		187		1		50		97		4			15		310		164.7	
4/18/2022	2	60	10.2		189		1		43		97		3			15		310		165.5	
4/18/2022	3	60	10.1		183		2		46		96		2	3		12		310	310	166.0	165.2
4/18/2022	4	60	10.1		192		1		42		97		2			12		310		165.6	
4/18/2022	5	60	10.3		186		2		47		95		2			12		310		165.5	
4/18/2022	6	60	10.3		190		1		36		98		2			12		310		165.3	
4/18/2022	7	60	10.4		196		0		30		99		4	2		13	13	310	310	165.6	165.5
4/18/2022	8	60	10.4		185		0		25		99		2			13		310		165.8	
4/18/2022	9	60	10.4		190		4		65		94		3			13		310		165.8	
4/18/2022	10	60	10.3		190		15		96		84		3			13		310		166.1	
4/18/2022	11	60	10.2		198		1		40		98		2	3		13		310	310	165.6	165.8
4/18/2022	12	60	10.2		197		7		76		91		2			13		310		164.8	
4/18/2022	13	60	10.1		195		20		106		82		3			13		310		164.6	
4/18/2022	14	60	10.2		188		20		101		80		2			12		310		165.5	
4/18/2022	15	60	10.3		188		0		26	100		4	3		13	13	310	310	165.9	165.2	
4/18/2022	16	60	10.2		184		1		18		92		3			17		310		164.7	
4/18/2022	17	60	10.2		190		0		25		98		3			18		310		165.6	
4/18/2022	18	60	10.3		186		1		29		97		4			17		310		165.5	
4/18/2022	19	60	10.2		199		1		45		98		2	3		16		310	310	166.1	165.5
4/18/2022	20	60	10.2		188		1		40		96		3			16		310		166.3	
4/18/2022	21	60	10.3		197		3		55		95		2			15		310		164.9	
4/18/2022	22	60	10.2		193		12		74		84		2			15		310		166.2	
4/18/2022	23	60	10.1		200		1		38		98		1	2		15	16	310	310	165.6	165.8

Average:
Geometric Mean Average:

Limit:

191	2
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

97
≥ 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 18-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
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 18-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
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