



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



Date 7/9/22

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.
7/9/2022	0	60	9.7		189		17		58		71		3			13		309		168.5	
7/9/2022	1	60	9.9		182		11		55		81		3			13		310		165.0	
7/9/2022	2	60	9.8		179		11		52		79		3			13		309		166.4	
7/9/2022	3	60	9.8		187		9		45		79		3	3		13		309	309	167.6	166.9
7/9/2022	4	60	9.8		193		7		43		83		4			13		310		164.7	
7/9/2022	5	60	9.7		195		14		54		73		3			13		309		166.1	
7/9/2022	6	60	9.7		191		7		39		83		4			13		309		163.3	
7/9/2022	7	60	9.8		178		10		48		80		4	4		13	13	309	309	166.2	165.1
7/9/2022	8	60	10.0		194		21		67		69		4			13		309		164.2	
7/9/2022	9	60	10.2		196		24		67		64		3			13		310		164.9	
7/9/2022	10	60	10.0		190		6		35		83		4			13		309		164.7	
7/9/2022	11	60	9.9		198		6		34		83		4	4		13		310	309	166.0	165.0
7/9/2022	12	60	10.0		190		13		36		64		4			13		309		166.9	
7/9/2022	13	60	9.8		192		6		30		81		4			13		310		162.8	
7/9/2022	14	60	9.8		190		8		33		77		4			13		309		165.8	
7/9/2022	15	60	9.8		187		3		29		88		4	4		13	13	309	309	164.7	165.0
7/9/2022	16	60	10.0		195		18		47		62		3			13		310		165.0	
7/9/2022	17	60	10.0		198		15		43		65		3			14		309		165.7	
7/9/2022	18	60	9.9		194		15		41		64		4			13		309		164.7	
7/9/2022	19	60	10.0		189		16		48		66		4	3		13		310	309	165.8	165.3
7/9/2022	20	60	9.8		189		11		45		76		4			13		309		162.7	
7/9/2022	21	60	9.7		194		9		52		83		4			13		309		165.5	
7/9/2022	22	60	9.8		191		7		45		84		4			13		309		163.6	
7/9/2022	23	60	9.6		177		8		58		86		7	5		13	13	309	309	167.1	164.7

Average:
Geometric Mean Average:

Limit:

190	10
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

77
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

see above
≤ 12 8-HR. Block Average

lb/hr

see above
≤ 345 4-HR Block Average

°F

see above
≤ 173 4-HR Block Average

klb/hr

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 7/9/22

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.
7/9/2022	0	60	11.2		191		2		31		93		2			13		300		157.0	
7/9/2022	1	60	11.2		193		9		32		72		2			13		314		160.1	
7/9/2022	2	60	11.3		189		10		33		69		3			13		314		156.2	
7/9/2022	3	60	10.9		184		14		35		61		3	3		13		318	311	164.4	159.4
7/9/2022	4	60	10.5		184		6		33		81		4			14		310		163.3	
7/9/2022	5	60	10.7		187		5		26		82		3			14		308		163.2	
7/9/2022	6	60	11.1		187		8		21		64		3			13		316		159.5	
7/9/2022	7	60	11.6		187		2		20		90		4	3		13	13	314	312	149.4	158.8
7/9/2022	8	60	11.5		184		5		25		80		5			14		309		152.8	
7/9/2022	9	60	10.7		176		9		32		73		10			13		320		162.8	
7/9/2022	10	60	10.9		184		1		20		94		4			13		314		157.9	
7/9/2022	11	60	11.1		183		0		18		100		4	6		13		306	312	153.5	156.8
7/9/2022	12	60	10.9		186		1		23		95		3			13		311		157.9	
7/9/2022	13	60	10.8		188		1		20		95		2			13		315		158.6	
7/9/2022	14	60	10.8		191		4		26		84		2			13		316		158.0	
7/9/2022	15	60	10.8		189		4		23		81		2	2		13	13	316	314	157.4	158.0
7/9/2022	16	60	10.9		184		4		24		85		2			13		315		158.4	
7/9/2022	17	60	10.8		184		5		21		74		2			14		317		162.1	
7/9/2022	18	60	10.8		188		11		29		63		2			14		326		164.6	
7/9/2022	19	60	10.8		195		1		29		95		2	2		13		315	318	164.5	162.4
7/9/2022	20	60	10.8		178		3		38		92		2			13		301		166.0	
7/9/2022	21	60	10.3		179		10		53		82		32			14		305		169.3	
7/9/2022	22	60	10.9		191		16		45		63		2			14		315		165.2	
7/9/2022	23	60	10.5		183		10		50		79		1	9		13	14	309	307	172.1	168.2

Average:
Geometric Mean Average:

Limit:

186	4
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

86
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

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≤ 12 8-HR. Block Average

lb/hr

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 09-Jul-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	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1
6	2	IC	5	IC	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1

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 09-Jul-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	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1
6	1	IBC	5	IBC	1	1	1	1	1	1	2
7	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1
11	2	2	2	2	2	2	2	2	1	2	2
12	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	2	2	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1

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