



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



Date 2/17/22

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.
2/17/2022	0	60	10.3		198		16		51		69		5			13		309		165.7	
2/17/2022	1	60	10.2		199		7		34		78		5			13		309		164.3	
2/17/2022	2	60	10.2		199		18		55		68		6			13		310		165.0	
2/17/2022	3	60	10.2		196		22		59		63		6	6		13		309	309	166.1	165.3
2/17/2022	4	60	10.2		200		7		33		80		7			13		309		167.5	
2/17/2022	5	60	10.2		197		18		18		0		6			13		310		167.1	
2/17/2022	6	60	10.1		196		8		12		32		7			13		309		166.1	
2/17/2022	7	60	10.4		197		5		11		53		6	7		14	13	309	309	165.1	166.4
2/17/2022	8	60	10.3		189		7		17		60		7			13		310		166.6	
2/17/2022	9	60	10.4		185		5		9		41		5			14		309		163.6	
2/17/2022	10	60	10.3		198		10		30		68		6			14		309		164.7	
2/17/2022	11	60	10.3		196		20		65		69		6	6		14		310	309	164.2	164.8
2/17/2022	12	60	10.1		198		22		63		66		7			14		309		167.7	
2/17/2022	13	60	10.0		195		8		27		69		7			13		309		167.9	
2/17/2022	14	60	10.4		194		20		58		66		6			13		309		165.4	
2/17/2022	15	60	10.1		193		5		24		77		7	7		13	13	310	309	165.2	166.5
2/17/2022	16	60	10.3		199		5		18		71		5			13		309		166.1	
2/17/2022	17	60	10.5		192		11		38		70		6			13		310		162.9	
2/17/2022	18	60	10.0		187		5		24		78		7			12		309		165.9	
2/17/2022	19	60	10.1		191		5		22		76		7	6		14		309	309	165.3	165.0
2/17/2022	20	60	10.0		192		5		18		72		6			12		309		165.1	
2/17/2022	21	60	10.0		195		5		18		73		6			14		309		165.9	
2/17/2022	22	60	9.9		193		4		20		81		7			13		309		166.4	
2/17/2022	23	60	10.1		192		10		28		66		6	6		13	13	309	309	165.9	165.8

Average:
Geometric Mean Average:

Limit:

195	9
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

67
≥ 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



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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.
2/17/2022	0	60	9.1		190		8		54		85		2			13		310		166.9	
2/17/2022	1	60	9.1		190		4		36		90		1			13		310		166.8	
2/17/2022	2	60	8.9		192		4		38		90		2			13		310		166.4	
2/17/2022	3	60	9.1		190		7		43		83		2	2		14		310	310	166.6	166.7
2/17/2022	4	60	8.9		187		8		37		78		2			14		310		167.7	
2/17/2022	5	60	9.0		193		8		34		76		2			14		310		166.6	
2/17/2022	6	60	8.9		193		8		38		79		2			13		310		166.5	
2/17/2022	7	60	9.3		181		3		31		90		4	2		13	13	310	310	167.3	167.0
2/17/2022	8	60	9.1		187		4		39		89		4			15		310		166.6	
2/17/2022	9	60	9.3		170		8		40		80		1			14		310		165.3	
2/17/2022	10	60	9.1		186		3		32		90		2			16		310		166.7	
2/17/2022	11	60	8.9		181		4		36		90		1	2		16		310	310	166.2	166.2
2/17/2022	12	60	8.9		185		15		72		79		3			16		310		167.0	
2/17/2022	13	60	8.9		173		2		34		95		1			13		310		166.8	
2/17/2022	14	60	8.8		180		3		42		92		1			13		310		166.1	
2/17/2022	15	60	8.5		187		1		30		96		1	2		13	14	310	310	166.5	166.6
2/17/2022	16	60	8.6		190		1		21		96		2			12		310		166.3	
2/17/2022	17	60	8.5		192		3		36		91		1			14		310		166.2	
2/17/2022	18	60	8.6		190		1		20		94		1			14		310		166.8	
2/17/2022	19	60	8.5		188		1		19		95		2	1		14		306	309	166.8	166.5
2/17/2022	20	60	8.6		177		1		24		94		1			13		307		166.6	
2/17/2022	21	60	8.5		195		2		27		93		2			13		308		166.9	
2/17/2022	22	60	8.6		195		1		28		95		2			14		310		166.8	
2/17/2022	23	60	8.7		186		1		24		95		1	2		14	14	310	309	166.4	166.7

Average:
Geometric Mean Average:

Limit:

187	3
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

91
≥ 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 17-Feb-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	1	1	2	1
1	1	1	1	1	2	2	2	1	1	2	1
2	1	1	1	2	1	2	1	2	1	2	1
3	1	1	2	1	2	1	2	2	2	1	1
4	2	2	1	1	1	2	2	2	2	2	1
5	2	2	2	2	1	2	1	2	1	2	1
6	2	IC	6	IC	2	1	1	1	1	1	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	1	1	1	2	1
11	1	2	1	1	2	2	1	1	1	2	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	2	2	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

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



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 17-Feb-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	7	IBC	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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