



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



Date 2/19/22

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.
2/19/2022	0	60	9.8		194		8		33		75		5			13		309		166.4	
2/19/2022	1	60	9.8		198		10		36		72		5			14		310		168.4	
2/19/2022	2	60	10.0		195		21		41		49		5			13		314		169.2	
2/19/2022	3	60	10.1		194		25		85		70		5	5		14		318	313	169.3	168.3
2/19/2022	4	60	10.3		199		20		60		66		6			14		309		166.6	
2/19/2022	5	60	10.0		198		19		61		69		6			13		310		167.9	
2/19/2022	6	60	10.0		195		18		57		69		5			14		309		166.5	
2/19/2022	7	60	10.1		196		14		39		64		5	5		14	14	309	309	165.6	166.6
2/19/2022	8	60	10.0		196		15		38		61		5			15		310		165.6	
2/19/2022	9	60	10.1		195		12		29		58		5			14		309		166.4	
2/19/2022	10	60	10.1		197		16		36		56		5			14		309		165.3	
2/19/2022	11	60	9.9		197		11		34		68		5	5		13		310	309	166.3	165.9
2/19/2022	12	60	10.1		196		15		40		62		5			14		309		166.1	
2/19/2022	13	60	10.0		197		9		31		70		5			13		309		168.2	
2/19/2022	14	60	10.1		197		14		45		69		6			14		309		166.4	
2/19/2022	15	60	10.0		196		11		39		71		5	5		13	14	309	309	167.1	167.0
2/19/2022	16	60	9.9		194		8		35		77		5			13		309		167.7	
2/19/2022	17	60	10.0		195		12		43		73		5			14		309		165.2	
2/19/2022	18	60	9.9		195		12		40		70		6			14		309		164.7	
2/19/2022	19	60	10.0		199		15		41		64		5	5		13		309	309	165.7	165.8
2/19/2022	20	60	10.0		197		21		55		62		5			14		309		165.4	
2/19/2022	21	60	10.0		199		16		57		72		5			13		310		165.3	
2/19/2022	22	60	10.1		198		23		70		67		5			14		309		166.1	
2/19/2022	23	60	10.2		197		20		57		65		4	5		13	14	309	309	166.9	165.9

Average:
Geometric Mean Average:

Limit:

196	15
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

67
≥ 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

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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Date 2/19/22

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.
2/19/2022	0	60	9.2		184		4		33		88		2			13		310		166.7	
2/19/2022	1	60	9.2		185		4		32		88		2			13		310		169.0	
2/19/2022	2	60	9.2		188		8		39		80		2			13		309		169.6	
2/19/2022	3	60	9.3		182		10		51		80		2	2		13		310	310	169.5	168.7
2/19/2022	4	60	9.4		181		6		33		83		2			13		310		168.0	
2/19/2022	5	60	9.5		185		13		51		74		2			13		309		167.0	
2/19/2022	6	60	9.5		188		7		42		83		2			13		310		166.0	
2/19/2022	7	60	9.3		193		5		32		84		2	2		12	13	310	310	166.9	167.0
2/19/2022	8	60	9.4		193		6		28		79		3			13		310		166.5	
2/19/2022	9	60	9.2		188		3		31		89		2			13		310		166.9	
2/19/2022	10	60	9.2		181		5		30		84		2			13		310		166.6	
2/19/2022	11	60	9.1		187		6		29		79		2	2		13		310	310	166.8	166.7
2/19/2022	12	60	9.2		185		3		26		88		3			13		306		165.8	
2/19/2022	13	60	9.2		183		2		32		94		3			13		285		167.3	
2/19/2022	14	60	9.3		188		6		39		85		2			13		303		166.6	
2/19/2022	15	60	9.2		189		4		46		91		3	3		13	13	304	299	166.1	166.5
2/19/2022	16	60	9.2		194		7		45		85		4			13		311		167.0	
2/19/2022	17	60	9.1		183		5		36		86		2			12		310		167.2	
2/19/2022	18	60	9.1		193		5		33		85		2			13		310		166.6	
2/19/2022	19	60	9.2		190		17		48		64		3	3		13		310	310	166.4	166.8
2/19/2022	20	60	9.3		184		16		47		65		2			13		310		166.1	
2/19/2022	21	60	9.3		195		19		63		70		2			13		310		166.6	
2/19/2022	22	60	9.5		192		19		65		71		2			12		310		166.0	
2/19/2022	23	60	9.5		186		17		61		72		2	2		13	13	310	310	166.9	166.4

Average:
Geometric Mean Average:

Limit:

187	7
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

83
≥ 75% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

see above
≤ 12 lb/hr 8-HR. Block Average

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 19-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	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	1	1	2	2	1	1	1
3	1	1	1	1	1	1	2	1	1	1	1
4	1	1	1	2	2	2	2	2	2	2	1
5	2	2	2	1	1	1	1	1	1	1	1
6	2	IC	6	IC	1	1	2	2	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	1	1	1	1	1	1	1	1	1
11	1	1	2	1	1	2	2	1	1	2	1
12	2	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	2	1	1

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 19-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	6	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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