



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



Date 10/30/22

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.
10/30/2022	0	60	11.0		197		15		76		80		6			13		312		165.2	
10/30/2022	1	60	10.9		197		22		104		79		6			13		314		164.9	
10/30/2022	2	60	11.0		192		10		66		84		7			13		314		164.0	
10/30/2022	3	60	10.8		198		3		52		94		6	7		13		305	311	163.2	164.3
10/30/2022	4	60	10.9		201		7		62		89		6			13		308		166.7	
10/30/2022	5	60	10.8		197		5		57		90		6			13		307		166.8	
10/30/2022	6	60	10.8		193		3		64		95		5			13		302		163.2	
10/30/2022	7	60	10.7		193		4		62		93		5	6		13	13	303	305	166.9	165.9
10/30/2022	8	60	10.7		198		7		59		88		5			13		316		167.7	
10/30/2022	9	60	10.8		197		3		53		95		5			13		304		165.5	
10/30/2022	10	60	10.7		196		3		54		96		5			13		303		167.2	
10/30/2022	11	60	10.8		198		4		53		93		4	5		13		308	308	165.9	166.6
10/30/2022	12	60	10.9		199		6		58		89		4			13		312		167.7	
10/30/2022	13	60	10.9		193		3		53		94		5			13		307		166.1	
10/30/2022	14	60	10.8		194		4		57		92		4			14		310		165.4	
10/30/2022	15	60	10.8		201		4		48		91		5	5		13	13	313	311	167.8	166.7
10/30/2022	16	60	10.9		195		3		44		93		4			13		310		165.2	
10/30/2022	17	60	10.8		195		5		48		89		4			14		311		167.8	
10/30/2022	18	60	10.9		195		6		54		88		5			13		309		167.2	
10/30/2022	19	60	10.5		192		9		66		87		6	5		13		309	310	170.1	167.6
10/30/2022	20	60	10.8		194		9		73		87		5			13		306		164.8	
10/30/2022	21	60	10.6		190		5		57		91		4			13		307		164.9	
10/30/2022	22	60	10.7		192		6		53		89		4			13		310		164.0	
10/30/2022	23	60	10.6		191		5		56		91		4	5		13	13	311	308	166.2	165.0

Average:
Geometric Mean Average:

Limit:

195	5
≤ 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

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 10/30/22

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.
10/30/2022	0	60	10.6		197		14		70		80		2			13		310		165.1	
10/30/2022	1	60	10.6		197		16		78		79		3			13		310		166.2	
10/30/2022	2	60	10.6		192		14		70		80		3			13		310		167.2	
10/30/2022	3	60	10.6		191		5		47		89		3	3		13		310	310	166.0	166.1
10/30/2022	4	60	10.7		195		10		60		84		3			13		310		166.6	
10/30/2022	5	60	10.7		191		14		70		79		3			13		310		165.9	
10/30/2022	6	60	10.7		192		8		54		84		2			13		310		166.8	
10/30/2022	7	60	10.7		191		10		66		84		2	2		13	13	310	310	166.1	166.3
10/30/2022	8	60	10.7		189		8		51		84		2			13		310		166.5	
10/30/2022	9	60	10.6		192		7		54		87		2			13		310		166.6	
10/30/2022	10	60	10.5		187		7		55		86		2			13		310		165.8	
10/30/2022	11	60	10.7		187		5		41		87		3	2		13		310	310	166.1	166.3
10/30/2022	12	60	11.0		186		12		63		82		2			13		310		167.5	
10/30/2022	13	60	11.0		191		12		63		82		3			13		310		165.8	
10/30/2022	14	60	10.8		191		10		59		83		2			13		310		166.7	
10/30/2022	15	60	10.8		188		12		60		80		2	2		13	13	310	310	166.4	166.6
10/30/2022	16	60	10.7		188		7		46		84		2			13		310		167.2	
10/30/2022	17	60	10.8		191		8		43		82		3			14		310		166.3	
10/30/2022	18	60	10.8		190		11		52		80		3			13		310		166.9	
10/30/2022	19	60	10.7		185		19		79		76		2	3		13		310	310	166.0	166.6
10/30/2022	20	60	10.8		183		12		52		78		3			13		310		164.9	
10/30/2022	21	60	10.8		194		8		42		80		2			13		310		165.8	
10/30/2022	22	60	10.8		188		7		38		82		2			13		310		166.3	
10/30/2022	23	60	10.9		190		7		37		82		4	2		13	13	310	310	164.7	165.4

Average:
Geometric Mean Average:

Limit:

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

OR

83
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

see above
≥ 12 8-HR. Block Average

lb/hr

see above
≤ 345 °F 4-HR Block Average

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≤ 173 4-HR Block Average

klb/hr

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 30-Oct-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	3	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	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	1	0	0
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 30-Oct-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	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	IBC	5	IBC	1	1	1	1	1	1	2
7	1	1	1	1	1	1	1	1	1	1	1
8	2	2	2	2	2	2	1	1	2	2	1
9	2	2	2	2	2	2	1	2	2	2	2
10	2	2	2	2	2	2	1	1	2	2	2
11	2	2	2	2	2	2	2	2	2	2	2
12	1	1	1	1	2	2	2	2	1	2	1
13	1	1	1	1	1	1	1	1	1	1	1
14	1	2	2	2	2	2	2	2	2	2	2
15	2	2	2	2	2	2	2	2	1	2	2
16	1	2	1	2	1	1	1	1	1	1	1
17	1	1	1	1	2	2	2	2	2	2	1
18	2	1	1	2	1	1	2	2	2	1	1
19	2	2	2	2	2	2	2	1	2	2	2
20	2	2	2	2	2	2	2	2	2	2	2
21	1	2	2	2	1	2	2	2	2	2	1
22	2	2	1	2	2	2	2	1	1	2	2
23	2	2	2	2	2	2	2	2	2	2	2

Status Flags

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