



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



Date 4/24/22

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.
4/24/2022	0	60	9.3		188		16		69		77		2			14		309		167.2	
4/24/2022	1	60	9.3		191		19		89		78		3			13		309		167.4	
4/24/2022	2	60	9.5		186		19		75		75		2			13		305		167.9	
4/24/2022	3	60	9.4		183		22		81		72		3	2		14		309	308	168.6	167.8
4/24/2022	4	60	9.4		180		17		66		74		3			13		308		166.7	
4/24/2022	5	60	9.5		186		21		68		69		2			13		314		168.2	
4/24/2022	6	60	9.6		183		29		104		72		3			13		315		166.6	
4/24/2022	7	60	9.4		189		26		77		67		3	3		13	13	318	313	168.5	167.5
4/24/2022	8	60	9.5		162		9		72		88		4			13		304		166.3	
4/24/2022	9	60	9.5		167		14		70		80		3			13		300		164.4	
4/24/2022	10	60	9.2		173		20		68		73		3			13		307		167.1	
4/24/2022	11	60	9.2		181		20		64		69		3	3		13		308	305	167.3	166.3
4/24/2022	12	60	9.2		183		6		42		86		3			13		305		166.5	
4/24/2022	13	58	9.3		181		13		44		70		3			13		307		164.3	
4/24/2022	14	60	9.3		182		18		54		67		3			13		311		167.1	
4/24/2022	15	60	9.4		176		18		54		67		3	3		13	13	313	309	166.9	166.2
4/24/2022	16	60	9.2		168		10		49		81		4			13		309		165.5	
4/24/2022	17	60	9.3		178		15		53		71		3			13		308		167.6	
4/24/2022	18	60	9.2		164		16		80		80		26			13		305		165.4	
4/24/2022	19	60	9.4		174		26		106		76		4	9		13		306	307	164.2	165.7
4/24/2022	20	60	9.2		171		24		86		72		4			15		311		165.8	
4/24/2022	21	60	9.3		176		24		102		76		3			13		306		167.5	
4/24/2022	22	60	9.3		177		26		98		73		3			13		314		167.1	
4/24/2022	23	60	9.4		172		25		90		72		3	3		13	13	307	309	167.8	167.0

Average:
Geometric Mean Average:

Limit:

178	18
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

75
≥ 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



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



Date 4/24/22

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.
4/24/2022	0	60	9.7		193		1		69		99		4			12		310		165.6	
4/24/2022	1	60	9.5		194		7		97		93		2			12		310		167.0	
4/24/2022	2	60	9.6		188		3		84		97		2			13		310		168.3	
4/24/2022	3	60	9.6		196		1		60		99		2	3		14		310	310	168.0	167.2
4/24/2022	4	60	9.7		197		1		49		98		6			14		310		167.9	
4/24/2022	5	60	9.9		193		2		57		97		2			14		310		166.0	
4/24/2022	6	60	9.9		191		1		64		99		3			14		310		166.2	
4/24/2022	7	60	9.7		196		7		105		93		2	3		14	13	310	310	168.9	167.2
4/24/2022	8	60	9.9		195		1		69		98		2			14		310		165.3	
4/24/2022	9	60	9.8		189		2		80		97		2			14		310		168.0	
4/24/2022	10	60	9.8		196		1		71		99		4			14		310		167.7	
4/24/2022	11	60	9.7		200		0		59		100		4	3		14		310	310	167.2	167.0
4/24/2022	12	60	9.6		198		0		40		99		2			14		310		167.1	
4/24/2022	13	59	9.6		191		1		37		97		4			14		310		167.8	
4/24/2022	14	60	9.7		199		0		37		100		3			14		310		167.5	
4/24/2022	15	60	9.7		199		0		33		100		2	3		14	14	310	310	167.0	167.4
4/24/2022	16	60	9.7		198		0		29		99		3			14		310		166.9	
4/24/2022	17	60	9.6		200		0		39		99		3			13		310		167.7	
4/24/2022	18	60	9.6		194		1		80		99		2			14		310		166.6	
4/24/2022	19	60	9.5		189		2		84		97		3	3		14		310	310	167.6	167.2
4/24/2022	20	60	9.5		198		2		87		97		2			14		310		165.8	
4/24/2022	21	60	9.5		194		15		116		87		3			14		310		168.7	
4/24/2022	22	60	9.6		195		10		98		90		2			14		310		166.4	
4/24/2022	23	60	9.7		196		3		79		96		1	2		14	14	310	310	166.6	166.9

Average: Geometric Mean Average:	195	1	OR	99	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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 24-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
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 24-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