



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



Date 4/14/22

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.
4/14/2022	0	60	10.0		190		19		52		64		3			13		309		169.2	
4/14/2022	1	60	10.2		196		19		55		65		3			13		309		167.0	
4/14/2022	2	60	10.1		194		20		58		65		3			13		309		166.2	
4/14/2022	3	60	10.1		191		18		53		65		3	3		13		309	309	165.7	167.0
4/14/2022	4	60	10.2		191		14		60		76		4			13		309		165.8	
4/14/2022	5	60	10.1		190		19		59		68		4			13		309		166.0	
4/14/2022	6	60	10.1		197		18		50		63		5			13		310		165.5	
4/14/2022	7	60	9.9		198		18		45		60		6	5		13	13	309	309	166.1	165.9
4/14/2022	8	60	10.3		192		20		49		60		6			13		309		165.9	
4/14/2022	9	60	10.3		200		20		42		52		5			13		310		165.5	
4/14/2022	10	60	10.1		198		16		31		51		5			13		310		167.1	
4/14/2022	11	60	10.2		196		17		33		48		5	5		13		309	309	167.3	166.4
4/14/2022	12	60	10.0		198		18		31		42		5			13		310		166.6	
4/14/2022	13	60	10.1		200		15		28		49		5			13		309		165.9	
4/14/2022	14	60	10.3		199		27		57		52		6			13		309		165.5	
4/14/2022	15	60	10.3		198		23		64		65		6	6		13	13	310	310	168.5	166.6
4/14/2022	16	60	10.1		198		17		31		46		6			13		309		167.2	
4/14/2022	17	60	10.0		194		15		32		54		6			13		309		164.6	
4/14/2022	18	60	10.1		198		17		38		54		5			13		309		163.8	
4/14/2022	19	60	10.0		195		18		42		56		9	6		13		310	309	164.5	165.0
4/14/2022	20	60	9.9		194		14		41		65		7			13		309		166.4	
4/14/2022	21	60	9.8		195		13		41		67		6			13		309		167.6	
4/14/2022	22	60	9.8		193		16		47		66		7			13		309		166.8	
4/14/2022	23	60	10.0		196		13		35		64		6	6		13	13	309	309	165.0	166.5

Average: Geometric Mean Average:	195	17	OR	60	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

- 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 4/14/22

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.
4/14/2022	0	60	10.0		190		3		71		95		1			15		310		167.0	
4/14/2022	1	60	10.0		182		1		64		98		1			14		310		168.2	
4/14/2022	2	60	10.0		191		1		66		98		2			14		310		167.7	
4/14/2022	3	60	10.0		186		6		96		94		1	2		14		310	310	167.7	167.6
4/14/2022	4	60	10.1		196		3		73		97		2			14		310		167.5	
4/14/2022	5	60	10.1		182		4		79		95		2			14		310		167.9	
4/14/2022	6	60	10.1		184		4		69		94		1			13		310		167.2	
4/14/2022	7	60	10.1		186		3		69		96		2	2		13	14	310	310	168.1	167.7
4/14/2022	8	60	10.4		187		3		61		95		2			13		310		168.2	
4/14/2022	9	60	10.3		194		1		45		98		2			13		310		167.4	
4/14/2022	10	60	10.1		186		1		52		98		20			13		310		167.5	
4/14/2022	11	60	10.0		179		2		40		96		2	6		13		310	310	166.8	167.5
4/14/2022	12	60	10.3		197		0		39		100		3			13		310		164.9	
4/14/2022	13	60	10.3		189		2		50		97		1			13		310		166.2	
4/14/2022	14	60	10.1		189		13		83		84		2			13		310		165.9	
4/14/2022	15	60	10.2		183		8		57		86		1	2		13	13	310	310	165.9	165.7
4/14/2022	16	60	9.9		191		1		46		97		2			14		310		165.1	
4/14/2022	17	60	10.0		194		1		43		98		1			14		310		166.0	
4/14/2022	18	60	10.2		187		3		54		95		1			14		310		165.5	
4/14/2022	19	60	10.1		192		1		55		98		2	2		14		310	310	166.0	165.6
4/14/2022	20	60	10.1		184		8		76		90		2			14		310		165.4	
4/14/2022	21	60	10.1		185		0		45		99		2			14		310		165.5	
4/14/2022	22	60	10.1		191		4		73		94		2			14		310		165.3	
4/14/2022	23	60	10.1		189		3		57		94		2	2		14	14	310	310	165.8	165.5

Average: Geometric Mean Average:	188	2	OR	97	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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 14-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



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 14-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

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