



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



Date 5/12/22

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.
5/12/2022	0	60	10.0		168		3		42		92		8			13		303		165.8	
5/12/2022	1	60	10.0		179		4		38		90		8			13		305		167.1	
5/12/2022	2	60	9.8		177		7		37		87		8			13		314		168.7	
5/12/2022	3	60	10.0		177		4		33		87		8	8		13		310	308	167.1	167.2
5/12/2022	4	60	10.0		168		3		30		91		7			13		309		165.8	
5/12/2022	5	60	10.0		166		4		36		89		6			13		311		167.6	
5/12/2022	6	60	10.2		166		5		29		83		7			13		312		168.8	
5/12/2022	7	60	10.2		164		11		38		71		8	7		13	13	311	311	169.3	167.9
5/12/2022	8	60	10.3		169		11		36		70		10			13		309		168.7	
5/12/2022	9	60	10.4		157		3		36		92		7			13		298		165.5	
5/12/2022	10	60	10.3		171		3		22		84		9			14		308		165.7	
5/12/2022	11	60	10.5		165		10		39		75		10	9		14		304	305	167.9	166.9
5/12/2022	12	60	10.2		156		9		42		79		11			14		308		166.1	
5/12/2022	13	60	10.3		172		7		38		81		9			15		309		168.3	
5/12/2022	14	60	10.3		170		11		31		65		10			13		309		167.8	
5/12/2022	15	60	10.1		174		16		39		58		9	10		13	14	307	308	166.4	167.2
5/12/2022	16	60	10.2		167		12		31		62		11			14		306		166.6	
5/12/2022	17	60	10.3		179		20		40		50		8			14		310		168.5	
5/12/2022	18	60	10.2		161		20		38		47		9			14		308		169.3	
5/12/2022	19	60	10.3		164		13		42		69		8	9		14		297	305	169.7	168.5
5/12/2022	20	60	10.4		165		4		40		90		8			13		278		167.2	
5/12/2022	21	60	10.1		170		12		40		69		7			13		301		166.3	
5/12/2022	22	60	10.3		164		13		37		65		7			13		302		166.5	
5/12/2022	23	60	10.2		160		18		47		62		8	8		14	14	304	296	166.3	166.5

Average:
Geometric Mean Average:

Limit:

168	8
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

79
≥ 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 5/12/22

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.
5/12/2022	0	60	10.0		195		2		43		96		3			15		310		167.6	
5/12/2022	1	60	9.9		197		2		45		96		3			15		310		168.1	
5/12/2022	2	60	9.9		198		1		39		97		4			16		310		168.5	
5/12/2022	3	60	10.0		196		1		44		98		3	3		15		310	310	167.6	168.0
5/12/2022	4	60	10.0		188		0		36		99		2			14		310		167.2	
5/12/2022	5	60	10.0		194		1		48		98		1			14		310		167.7	
5/12/2022	6	60	10.1		192		0		34		99		2			14		310		167.3	
5/12/2022	7	60	10.0		195		0		41		99		2	2		14	15	310	310	168.0	167.6
5/12/2022	8	60	10.2		185		1		34		97		2			14		310		166.8	
5/12/2022	9	60	10.0		187		0		31		99		3			14		310		168.4	
5/12/2022	10	60	10.0		192		0		26		100		3			14		310		167.4	
5/12/2022	11	60	10.3		186		1		43		97		1	2		15		310	310	167.3	167.5
5/12/2022	12	60	10.1		190		2		62		96		3			14		310		165.4	
5/12/2022	13	60	9.9		188		3		55		94		2			14		310		167.4	
5/12/2022	14	60	9.7		186		2		35		96		3			14		311		165.6	
5/12/2022	15	60	10.0		192		1		29		98		1	2		9	13	310	310	167.3	166.4
5/12/2022	16	60	9.9		188		2		39		94		1			12		310		167.8	
5/12/2022	17	60	10.0		194		2		36		96		1			12		310		167.8	
5/12/2022	18	60	10.0		187		10		61		84		2			12		310		167.4	
5/12/2022	19	60	10.0		188		14		70		80		1	1		14		310	310	168.2	167.8
5/12/2022	20	60	10.1		190		6		48		87		1			13		310		166.8	
5/12/2022	21	60	9.9		195		8		53		84		1			15		310		168.6	
5/12/2022	22	60	10.0		196		7		44		84		2			15		310		167.4	
5/12/2022	23	60	10.0		193		5		44		89		1	1		15	13	310	310	167.2	167.5

Average: Geometric Mean Average:	191	2	OR	96	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 12-May-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 12-May-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	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	2	IBC	4	IBC	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0

Status Flags

I - Invalid C - Calibration F - Offline T - Out of Control ^ - Startup
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown