



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



Date 4/27/22

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.
4/27/2022	0	60	9.8		167		12		40		69		4			13		309		166.0	
4/27/2022	1	60	9.9		178		17		34		50		4			13		304		166.2	
4/27/2022	2	60	9.7		171		10		28		64		4			13		307		167.7	
4/27/2022	3	60	9.7		182		20		42		52		4	4		13		311	308	167.0	166.7
4/27/2022	4	60	9.9		178		20		37		47		5			14		310		166.2	
4/27/2022	5	60	9.8		171		27		55		50		5			13		315		166.9	
4/27/2022	6	60	9.9		175		10		38		72		5			13		307		166.3	
4/27/2022	7	60	9.8		168		11		33		66		6	5		14	13	309	310	167.2	166.7
4/27/2022	8	60	10.1		168		14		52		73		5			13		303		165.7	
4/27/2022	9	60	9.9		176		22		27		21		6			13		313		167.6	
4/27/2022	10	60	10.0		181		18		32	IBM	45	IBM	5			14		311		167.2	
4/27/2022	11	60	10.1		162		23		71		68		4	5		14		304	308	166.2	166.7
4/27/2022	12	60	10.0		175		29		75		62		6			13		315		164.7	
4/27/2022	13	60	10.1		183		23		41		44		5			13		307		167.8	
4/27/2022	14	60	9.9		181		20		33		38		6			13		309		167.8	
4/27/2022	15	60	9.9		183		20		29		31		6	6		14	13	307	310	166.7	166.8
4/27/2022	16	60	9.9		166		6		24		75		6			13		300		164.8	
4/27/2022	17	60	9.6		157		4		32		87		6			13		300		169.0	
4/27/2022	18	60	9.8		188		16		37		58		6			13		299		167.3	
4/27/2022	19	60	9.9		181		15		30		50		7	6		14		301	300	166.0	166.8
4/27/2022	20	60	9.7		181		18		30		40		7			13		308		167.0	
4/27/2022	21	60	9.9		182		15		33		56		5			13		304		164.4	
4/27/2022	22	60	9.6		185		23		40		44		6			13		309		169.1	
4/27/2022	23	60	9.8		189		21		39		47		6	6		13	13	312	308	166.9	166.8

Average:
Geometric Mean Average:

Limit:

176	16
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

58
≥ 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 4/27/22

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.
4/27/2022	0	60	9.5		188		2		44		96		3			14		310		168.3	
4/27/2022	1	60	9.5		191		0		42		100		2			14		310		167.9	
4/27/2022	2	60	9.6		193		0		41		100		2			14		310		167.6	
4/27/2022	3	60	9.5		200		1		53		98		3	3		15		310	310	168.0	167.9
4/27/2022	4	60	9.5		191		0		46		100		5			14		310		166.9	
4/27/2022	5	60	9.5		193		1		42		99		4			14		310		168.1	
4/27/2022	6	60	9.5		198		1		42		98		3			14		310		166.5	
4/27/2022	7	60	9.5		191		1		35		98		3	4		14	14	310	310	166.5	167.0
4/27/2022	8	60	10.1		196		6		66		91		4			14		309		166.9	
4/27/2022	9	60	9.8		191		1		44		99		5			14		311		166.5	
4/27/2022	10	60	9.8		189		0		34	IBM	99	IBM	2			14		310		168.6	
4/27/2022	11	60	9.6		193		3		70		95		4	4		14		310	310	167.8	167.5
4/27/2022	12	60	9.5		195		1		50		98		4			14		310		168.1	
4/27/2022	13	60	9.5		194		0		46		99		5			14		310		167.5	
4/27/2022	14	60	9.5		198		2		38		94		5			14		310		168.1	
4/27/2022	15	60	9.4		199		0		35		100		5	5		14	14	310	310	168.0	167.9
4/27/2022	16	60	9.5		194		1		35		96		4			14		310		167.0	
4/27/2022	17	60	9.6		190		1		37		98		5			14		310		167.7	
4/27/2022	18	60	9.6		196		0		47		100		5			14		310		167.0	
4/27/2022	19	60	9.6		189		0		42		99		6	5		13		310	310	167.7	167.4
4/27/2022	20	60	9.6		192		0		37		99		6			12		310		168.7	
4/27/2022	21	60	9.7		203		0		38		99		4			12		310		166.2	
4/27/2022	22	60	9.7		200		0		52		100		4			14		310		168.1	
4/27/2022	23	60	9.9		188		1		40		99		4	4		14	13	310	310	167.6	167.7

Average: Geometric Mean Average:	194	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 27-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 27-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	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