



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



Date 6/15/22

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.
6/15/2022	0	60	9.8		173		9		70		87		3			14		304		164.7	
6/15/2022	1	60	9.9		185		17		82		79		2			15		305		164.6	
6/15/2022	2	60	9.9		197		14		59		77		2			15		304		165.6	
6/15/2022	3	60	9.9		197		20		74		73		2	2		14		304	304	165.6	165.1
6/15/2022	4	60	9.9		197		22		79		73		2			14		305		164.4	
6/15/2022	5	60	9.7		198		15		49		70		2			14		304		165.9	
6/15/2022	6	60	9.7		199		13		41		69		2			14		304		165.2	
6/15/2022	7	60	9.6		198		7		42		82		3	2		16	15	304	304	165.7	165.3
6/15/2022	8	60	9.9		174		8		55		85		2			14		304		163.8	
6/15/2022	9	60	10.0		183		2		37		93		2			14		304		163.8	
6/15/2022	10	60	10.3		152		17		46		63		2			14		304		163.2	
6/15/2022	11	60	10.0		152		14		54		73		2	2		16		304	304	165.8	164.2
6/15/2022	12	60	9.8		151		12		44		73		4			14		304		166.7	
6/15/2022	13	60	9.8		183		8		36		79		3			14		304		167.4	
6/15/2022	14	60	9.8		192		9		32		71		2			14		305		166.6	
6/15/2022	15	60	9.9		196		15		39		61		3	3		14	14	304	304	163.9	166.1
6/15/2022	16	60	10.1		193		14		35		59		2			14		304		164.3	
6/15/2022	17	60	10.2		194		9		29		71		2			14		304		162.6	
6/15/2022	18	60	10.0		190		12		37		68		3			14		304		166.4	
6/15/2022	19	60	9.8		167		3		32		90		4	3		12		304	304	164.7	164.5
6/15/2022	20	60	10.1		178		15		43		66		2			11		304		163.3	
6/15/2022	21	60	10.0		199		18		42		57		2			13		304		164.1	
6/15/2022	22	60	9.8		196		16		45		65		2			13		305		166.1	
6/15/2022	23	60	9.7		200		13		36		65		2	2		14	13	304	304	166.9	165.1

Average:
Geometric Mean Average:

Limit:

185	11
≤ 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 6/15/22

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.
6/15/2022	0	60	10.3		199		14		10		0		1			14		311		167.8	
6/15/2022	1	60	10.4		195		12		9		0		2			14		311		165.7	
6/15/2022	2	60	10.1		197		20		9		0		2			14		317		167.3	
6/15/2022	3	60	10.5		197		21		10		0		1	1		14		315	314	164.4	166.3
6/15/2022	4	60	10.3		200		16		9		0		2			14		315		166.3	
6/15/2022	5	60	10.3		197		15		23		36		1			14		312		165.8	
6/15/2022	6	60	10.2		197		10		19		47		1			14		313		164.9	
6/15/2022	7	60	10.3		199		6		21		73		1	1		14	14	312	313	165.5	165.6
6/15/2022	8	60	10.6		192		10		25		61		1			13		308		165.7	
6/15/2022	9	60	10.5		193		6		18		67		2			14		309		165.9	
6/15/2022	10	60	10.9		160		18		27		34		2			14		310		163.4	
6/15/2022	11	60	10.6		172		14		25		45		2	2		14		309	309	165.3	165.1
6/15/2022	12	60	10.3		155		9		15		39		3			13		320		166.5	
6/15/2022	13	60	10.4		173		2		11		80		3			13		305		165.1	
6/15/2022	14	60	10.1		194		5		11		55		2			13		312		166.1	
6/15/2022	15	60	10.1		181		11		16		36		2	3		13	13	313	312	165.4	165.8
6/15/2022	16	60	10.2		176		6		17		62		1			14		305		165.7	
6/15/2022	17	60	10.5		177		3		8		60		1			13		304		164.1	
6/15/2022	18	60	10.4		169		4		10		55		2			14		308		166.3	
6/15/2022	19	60	10.4		174		20		26		24		2	1		13		311	307	166.0	165.5
6/15/2022	20	60	10.2		181		21		35		39		2			13		311		164.9	
6/15/2022	21	60	10.2		171		13		14		6		1			13		313		165.6	
6/15/2022	22	60	10.4		173		9		9		8		1			13		316		164.9	
6/15/2022	23	60	10.2		176		6		10		35		1	1		14	14	316	314	166.0	165.4

Average:
Geometric Mean Average:

Limit:

183	10
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

35
≥ 75% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

see above
≤ 12 lb/hr 8-HR. Block Average

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 15-Jun-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	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 15-Jun-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	1	0	1	0	0	0	0	0	0	0
2	0	0	0	1	1	1	1	1	1	1	0
3	0	1	0	1	0	1	1	0	1	1	0
4	1	0	1	1	1	1	1	1	1	1	1
5	0	0	0	1	1	1	1	1	1	1	0
6	2	IBC	5	IBC	1	1	0	1	1	0	1
7	1	1	1	1	1	1	1	1	0	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	0	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	0	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	0	1	1	1
16	0	1	1	0	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	0	1	1
20	1	1	1	1	0	1	1	0	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	0	0	1	0	1	0	0
23	1	0	1	0	0	0	1	1	1	0	0

Status Flags

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