



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



Date 8/12/22

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.
8/12/2022	0	60	9.6		185		6		54		89		5			14		302		162.6	
8/12/2022	1	60	9.7		174		5		42		88		4			13		301		164.8	
8/12/2022	2	60	9.9		186		13		57		77		5			13		312		163.5	
8/12/2022	3	60	9.7		195		17		55		70		4	5		13		317	308	165.7	164.1
8/12/2022	4	60	9.8		190		8		50		84		4			13		310		163.4	
8/12/2022	5	60	9.5		191		12		39		70		4			14		309		165.0	
8/12/2022	6	60	9.6		187		12		40		69		3			13		314		164.2	
8/12/2022	7	60	9.8		176		14		69		79		3	4		14	13	304	309	162.7	163.8
8/12/2022	8	60	9.7		195		15		71		79		3			13		314		164.9	
8/12/2022	9	60	9.8		189		17		81		79		11			14		305		166.9	
8/12/2022	10	60	10.1		192		20		73		73		2			13		305		163.7	
8/12/2022	11	60	10.1		197		29		68		57		3	5		13		321	311	164.0	164.9
8/12/2022	12	60	9.7		190		17		68		75		4			13		311		166.1	
8/12/2022	13	60	9.6		192		15		89		83		4			13		307		164.3	
8/12/2022	14	60	9.6		193		16		64		75		4			13		313		165.5	
8/12/2022	15	60	9.5		189		11		61		83		4	4		13	13	315	312	165.4	165.3
8/12/2022	16	60	9.7		197		15		60		76		3			14		318		167.0	
8/12/2022	17	60	10.0		191		26		75		66		3			14		319		164.6	
8/12/2022	18	60	9.8		188		22		65		66		5			14		317		165.9	
8/12/2022	19	60	10.0		186		16		70		78		4	4		14		318	318	160.3	164.5
8/12/2022	20	60	9.6		183		20		78		75		4			14		319		164.8	
8/12/2022	21	60	9.7		182		15		79		81		4			12		313		165.5	
8/12/2022	22	60	9.8		194		6		61		91		3			13		301		164.1	
8/12/2022	23	60	9.6		195		5		64		92		4	4		8	13	303	309	164.7	164.7

Average: Geometric Mean Average:	189	13	OR	79	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 8/12/22

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.
8/12/2022	0	60	10.0		155		4		34		90		4			16		310		166.5	
8/12/2022	1	60	10.3		162		3		25		86		4			14		311		166.2	
8/12/2022	2	60	10.2		160		3		28		90		3			15		305		166.0	
8/12/2022	3	60	10.2		166		3		30		90		3	4		15		305	308	166.8	166.4
8/12/2022	4	60	10.3		153		5		45		90		5			15		304		166.0	
8/12/2022	5	60	10.5		162		4		23		84		5			15		306		164.4	
8/12/2022	6	60	10.4		162		6		21		70		4			15		307		164.9	
8/12/2022	7	60	10.5		158		8		17		55		5	5		14	15	310	307	163.7	164.7
8/12/2022	8	60	10.5		160		2		18		87		7			14		304		163.7	
8/12/2022	9	60	10.3		163		4		15		74		8			14		316		166.6	
8/12/2022	10	60	11.1		157		11		25		58		5			14		317		164.7	
8/12/2022	11	60	11.0		167		19		47		61		114	34		14		306	311	167.8	165.7
8/12/2022	12	60	10.4		162		7		42		84		7			14		299		165.2	
8/12/2022	13	60	10.2		166		18		48		63		5			13		309		164.7	
8/12/2022	14	60	10.5		174		5		20		77		4			14		317		164.2	
8/12/2022	15	60	10.1		165		4		21		81		5	5		13	14	313	309	167.2	165.3
8/12/2022	16	60	10.2		166		3		24		89		4			14		318		165.4	
8/12/2022	17	60	10.4		172		8		35		77		5			14		320		162.4	
8/12/2022	18	60	10.1		173		4		24		84		4			14		320		164.4	
8/12/2022	19	60	10.1		182		2		21		90		3	4		14		320	320	165.4	164.4
8/12/2022	20	60	10.2		180		3		27		89		3			13		310		165.6	
8/12/2022	21	60	10.4		178		3		38		91		3			13		318		166.5	
8/12/2022	22	60	10.4		179		3		30		89		4			14		308		165.2	
8/12/2022	23	60	10.2		194		6		38		85		4	4		14	14	323	315	165.3	165.7

Average:
Geometric Mean Average:

Limit:

167	5
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

83
≥ 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 12-Aug-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	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1
6	2	IC	5	IC	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	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	1	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	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	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	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1

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-Aug-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	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1
6	2	IBC	5	IBC	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	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	1	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	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	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	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1
23	1	0	1	1	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