



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



Date 4/16/22

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.
4/16/2022	0	0	20.9	IF	18	IF	9	IF	2	IBF	0	IBF	0	IF		0		98		0.0	
4/16/2022	1	50	17.7		431		17		0		0		21			0		129		0.2	
4/16/2022	2	60	17.4		461		17		0		0		16			1		158		0.9	
4/16/2022	3	60	15.7		351		14		2		0		10	16		13		195	160	26.9	9.3
4/16/2022	4	60	15.7		367		16		5		0		23			13		227		34.5	
4/16/2022	5	47	15.6		354		16		7		0		73			13		238		33.2	
4/16/2022	6	60	15.1		337		15		4		0		29			13		246		35.2	
4/16/2022	7	60	14.5		323		17		11		0		3	32		13	9	252	241	42.7	36.4
4/16/2022	8	60	13.3		243		34		39		14		56			13		283		60.2	
4/16/2022	9	60	10.9		172		7		61		88		5			13		310		94.0	
4/16/2022	10	60	8.5		181		5		96		95		4			13		311		165.8	
4/16/2022	11	60	10.6		197		10		58		82		4	17		13		311	304	164.4	121.1
4/16/2022	12	60	10.4		198		26		77		66		2			13		311		165.0	
4/16/2022	13	60	10.5		201		24		72		67		3			13		310		166.1	
4/16/2022	14	60	10.4		196		16		64		75		3			13		312		168.1	
4/16/2022	15	60	10.6		196		14		63		78		4	3		13	13	308	310	164.7	166.0
4/16/2022	16	60	10.3		197		23		67		66		3			14		305		167.3	
4/16/2022	17	60	10.8		199		27		60		55		3			13		300		163.6	
4/16/2022	18	60	10.5		198		26		61		57		3			13		306		163.9	
4/16/2022	19	60	10.3		199		16		56		72		3	3		13		309	305	167.5	165.6
4/16/2022	20	60	10.1		199		9		57		84		3			13		310		168.2	
4/16/2022	21	60	10.2		198		14		63		78		2			13		307		168.1	
4/16/2022	22	60	10.3		197		14		58		75		3			13		308		163.6	
4/16/2022	23	60	10.1		199		24		60		60		2	2		13	13	309	308	167.5	166.9

Average: Geometric Mean Average:	252	16	OR	18	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 4/16/22

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.
4/16/2022	0	60	9.8		178		2		48		95		3			15		310		165.8	
4/16/2022	1	60	9.9		187		1		41		97		1			14		310		165.0	
4/16/2022	2	60	9.8		191		2		49		96		1			13		310		165.6	
4/16/2022	3	60	9.8		185		2		51		97		3	2		12		310	310	165.5	165.5
4/16/2022	4	60	9.9		183		3		51		95		4			13		310		166.0	
4/16/2022	5	60	10.0		187		6		68		91		3			14		310		164.2	
4/16/2022	6	60	9.9		197		6		60		90		4			14		310		165.6	
4/16/2022	7	60	10.0		188		6		49		88		3	3		14	14	310	310	165.4	165.3
4/16/2022	8	60	10.0		192		0		42		99		2			14		310		165.6	
4/16/2022	9	60	10.0		193		4		49		93		4			13		310		165.9	
4/16/2022	10	60	10.0		191		8		55		86		1			13		310		166.5	
4/16/2022	11	60	10.1		182		5		75		93		1	2		13		310	310	165.5	165.9
4/16/2022	12	60	9.9		183		9		77		88		2			14		310		167.0	
4/16/2022	13	60	10.0		181		2		60		97		2			14		310		166.5	
4/16/2022	14	60	10.0		180		3		54		94		2			13		310		165.2	
4/16/2022	15	60	10.0		185		3		49		94		1	2		16	14	310	310	165.1	165.9
4/16/2022	16	60	9.9		181		1		50		98		1			16		310		165.4	
4/16/2022	17	60	9.8		193		2		58		97		2			16		310		165.5	
4/16/2022	18	60	9.8		185		2		55		97		2			16		310		165.1	
4/16/2022	19	60	9.7		183		2		63		97		2	2		15		310	310	167.7	166.0
4/16/2022	20	60	9.9		186		2		59		96		1			15		310		168.1	
4/16/2022	21	60	9.9		194		2		51		96		2			15		310		166.7	
4/16/2022	22	60	10.0		182		3		62		95		3			11		310		167.2	
4/16/2022	23	60	10.0		188		4		65		93		2	2		14	15	310	310	167.3	167.3

Average:
Geometric Mean Average:

Limit:

187	3
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

95
≥ 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 16-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	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



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Date 16-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	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
1	2	IF	2	IF	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	IF	2	IF	1	IF	1		2		1
6	2	IC	6	IC	1		1		2		1		1		2		1		1		2
7	2		1		1		1		1		1		2		2		2		1		1
8	2		1		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		1		1		1		1		2		2		2		1		1
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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