



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



Date 6/18/22

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.
6/18/2022	0	60	10.1		196		4		53		92		3			13		304		169.6	
6/18/2022	1	60	10.2		199		7		60		89		3			13		304		168.3	
6/18/2022	2	60	10.3		199		6		53		88		4			13		304		165.9	
6/18/2022	3	60	10.1		198		11		64		83		3	3		13		304	304	169.1	168.2
6/18/2022	4	60	10.4		195		11		60		82		2			13		304		166.4	
6/18/2022	5	60	10.2		196		6		50		88		2			13		305		164.6	
6/18/2022	6	60	10.0		198		4		40		90		3			13		304		167.9	
6/18/2022	7	60	10.1		196		5		40		88		3	2		13	13	304	304	167.9	166.7
6/18/2022	8	60	10.2		196		11		56		81		2			13		304		167.3	
6/18/2022	9	60	10.1		199		6		39		85		3			13		305		166.2	
6/18/2022	10	60	10.1		198		8		42		81		3			13		304		168.2	
6/18/2022	11	60	10.2		198		7		45		84		2	3		13		304	304	166.8	167.1
6/18/2022	12	60	10.1		200		12		54		78		3			13		305		166.6	
6/18/2022	13	60	10.2		198		11		50		79		2			13		304		165.6	
6/18/2022	14	60	10.1		199		15		60		74		2			13		305		167.3	
6/18/2022	15	60	10.3		196		18		72		75		2	2		13	13	304	304	168.2	166.9
6/18/2022	16	60	10.2		190		11		52		79		2			13		304		168.5	
6/18/2022	17	60	10.4		197		8		38		79		2			13		304		166.8	
6/18/2022	18	60	10.4		200		8		47		83		2			13		305		165.1	
6/18/2022	19	60	10.2		198		8		45		83		2	2		13		305	304	168.0	167.1
6/18/2022	20	60	10.3		200		6		39		84		1			13		304		169.2	
6/18/2022	21	60	10.1		198		6		43		87		2			13		305		168.3	
6/18/2022	22	60	10.2		197		8		49		84		2			13		304		168.5	
6/18/2022	23	60	10.1		192		9		49		82		1	1		13	13	304	304	167.3	168.3

Average: Geometric Mean Average:	197	8	OR	84	see above	see above	see above	see above			
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 75% Removal Efficiency	≤ 69 4-HR Block Average	ppmc	≤ 12 8-HR. Block Average	lb/hr	≤ 345 °F 4-HR Block Average	≤ 173 4-HR Block Average	klb/hr

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 6/18/22

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.
6/18/2022	0	60	10.0		197		0		2		94		1			13		315		168.4	
6/18/2022	1	60	10.0		192		1		5		75		1			13		314		167.2	
6/18/2022	2	60	10.2		193		3		5		35		1			13		309		167.3	
6/18/2022	3	60	10.3		189		1		3		67		2	2		13		308	311	165.1	167.0
6/18/2022	4	60	10.1		190		2		6		61		2			13		304		167.4	
6/18/2022	5	60	10.1		192		2		7		77		1			13		300		168.0	
6/18/2022	6	60	10.2		193		1		2		63		1			13		305		165.1	
6/18/2022	7	60	10.1		192		1		0		0		2	1		13	13	307	304	165.9	166.6
6/18/2022	8	60	10.1		194		3		0		0		2			13		310		167.7	
6/18/2022	9	60	10.1		194		3		0		0		3			13		315		166.5	
6/18/2022	10	60	10.1		191		2		0		0		2			13		316		167.1	
6/18/2022	11	60	10.1		190		3		1		0		1	2		13		314	314	169.0	167.6
6/18/2022	12	60	10.2		188		3		2		0		1			13		307		167.3	
6/18/2022	13	60	10.1		189		5		1		0		2			13		307		170.0	
6/18/2022	14	60	10.1		192		7		3		0		1			13		304		167.1	
6/18/2022	15	60	9.8		183		5		3		0		1	1		13	13	304	305	169.1	168.4
6/18/2022	16	60	9.9		183		5		0		0		1			13		311		167.1	
6/18/2022	17	60	10.3		185		8		1		0		1			13		315		165.6	
6/18/2022	18	60	10.0		177		2		0		0		1			12		310		168.0	
6/18/2022	19	60	10.2		178		1		1		0		1	1		13		306	311	167.0	166.9
6/18/2022	20	60	10.2		185		1		0		0		1			13		307		168.7	
6/18/2022	21	60	10.2		185		1		0		0		0			13		308		167.6	
6/18/2022	22	60	10.2		181		1		0		0		1			14		306		168.2	
6/18/2022	23	60	10.5		178		4		0		0		1	1		13	13	310	308	167.5	168.0

Average:
Geometric Mean Average:

Limit:

188	2
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

0
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

see above
≤ 12 8-HR. Block Average

lb/hr

see above
≤ 345 °F 4-HR Block Average

°F

see above
≤ 173 4-HR Block Average

klb/hr

Status Flags

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 18-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 18-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	1	1	0	0	0	0	1	0	0
1	0	0	0	0	0	0	0	1	0	0	0
2	0	1	1	0	0	0	0	1	1	0	0
3	0	0	0	1	1	0	1	1	1	0	0
4	0	1	1	1	1	0	0	1	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	2	IBC	5	IBC	1	0	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	0	1	1	0	1	1	1
17	1	1	1	1	1	1	1	1	0	1	1
18	1	1	1	1	1	1	1	1	0	1	1
19	1	1	1	1	1	1	1	1	0	1	1
20	1	1	0	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	0	1	1	1	1
22	0	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