



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



Date 10/24/23

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.
10/24/2023	0	60	10.2		144		23		96		76		0			14		309		167.3	
10/24/2023	1	60	10.1		141		15		60		75		0			13		309		164.7	
10/24/2023	2	60	10.2		141		4		35		90		0			14		309		164.1	
10/24/2023	3	60	10.0		139		3		33		92		0	0		13		310	309	164.8	165.2
10/24/2023	4	60	9.7		155		2		33		94		2			14		309		168.3	
10/24/2023	5	60	9.8		144		2		25		91		0			13		310		166.4	
10/24/2023	6	60	10.3		135		10		42		75		0			15		308		166.4	
10/24/2023	7	60	10.2		147		9		43		79		1	1		14	14	310	309	166.5	166.9
10/24/2023	8	60	10.2		139		4		34		89		0			13		309		168.1	
10/24/2023	9	60	10.1		144		4		14		75		1			12		310		166.7	
10/24/2023	10	60	10.3		137		7		3		0		7			13		309		167.8	
10/24/2023	11	59	10.2		142		0		1		78		0	0		15		310	309	167.1	167.4
10/24/2023	12	60	10.0		143		1		31		98		1			15		310		167.6	
10/24/2023	13	60	10.0		142		0		29		99		0			15		309		166.3	
10/24/2023	14	60	10.1		136		2		33		95		0			14		309		165.7	
10/24/2023	15	60	10.2		142		1		33		97		0	0		12	14	309	309	162.6	165.6
10/24/2023	16	60	10.1		142		13		69		81		2			18		309		165.8	
10/24/2023	17	60	10.1		140		10		55		82		0			14		309		166.3	
10/24/2023	18	60	10.2		142		6		45		87		0			14		309		169.2	
10/24/2023	19	60	10.2		141		16		70		77		0	1		14		309	309	168.5	167.4
10/24/2023	20	60	10.4		140		17		82		79		0			13		310		165.3	
10/24/2023	21	60	10.2		141		12		67		83		0			14		309		164.2	
10/24/2023	22	60	10.3		143		7		41		83		1			13		310		163.7	
10/24/2023	23	60	10.3		137		0		39		99		0	0		13	14	309	309	164.5	164.4

Average:
Geometric Mean Average:

Limit:

141	4
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

89
≥ 80% 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 10/24/23

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.
10/24/2023	0	60	10.7		140		11		120		91		12			15		310		166.1	
10/24/2023	1	60	10.6		139		3		90		96		11			12		310		166.1	
10/24/2023	2	60	10.4		138		0		83		100		10			14		310		164.6	
10/24/2023	3	60	10.2		140		0		77		100		9	11		6		310	310	167.6	166.1
10/24/2023	4	60	10.4		140		1		80		99		9			14		310		167.2	
10/24/2023	5	60	10.3		139		0		55		100		10			8		310		165.8	
10/24/2023	6	60	10.5		138		0		60		100		9			10		310		166.3	
10/24/2023	7	60	10.6		142		0		74		100		7	9		25	13	310	310	166.9	166.5
10/24/2023	8	60	10.6		138		0		75		100		10			8		310		166.7	
10/24/2023	9	60	10.6		139		0		61		100		9			8		310		165.4	
10/24/2023	10	60	10.5		140		0		56		100		7			19		310		166.9	
10/24/2023	11	59	10.5		140		0		70		100		7	8		17		309	310	166.5	166.4
10/24/2023	12	60	10.3		139		0		64		100		8			18		310		165.8	
10/24/2023	13	60	10.1		142		0		62		100		11			16		310		164.6	
10/24/2023	14	60	10.1		139		0		100		100		9			13		310		166.7	
10/24/2023	15	60	10.2		141		9		143		93		9	9		13	14	310	310	166.4	165.9
10/24/2023	16	60	10.2		138		13		148		91		8			13		310		166.3	
10/24/2023	17	60	10.3		139		8		123		93		8			13		310		165.9	
10/24/2023	18	60	10.3		141		2		99		98		8			16		310		166.2	
10/24/2023	19	60	10.2		139		0		85		100		8	8		15		310	310	166.8	166.3
10/24/2023	20	60	10.3		139		23		166		86		9			14		310		166.1	
10/24/2023	21	60	10.3		140		7		118		94		7			14		310		166.4	
10/24/2023	22	60	10.3		139		1		79		99		7			14		310		166.4	
10/24/2023	23	60	10.3		138		0		77		100		6	7		14	14	310	310	166.7	166.4

Average:
Geometric Mean Average:

Limit:

139	1
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

100
≥ 80% 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 24-Oct-2023

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	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	3	IC	5	IC	0	0	0	0	0	0	1
7	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	0	0	0	1	0	0
9	1	0	0	0	1	0	1	0	0	0	0
10	0	0	1	1	1	1	1	1	0	1	0
11	1	0	0	0	I	0	0	0	0	0	0
12	0	0	0	0	1	1	1	1	1	1	0
13	1	1	1	1	1	1	0	0	0	1	0
14	1	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	1	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



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 24-Oct-2023

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	5	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	1	0	0	0	1	0
9	0	0	0	0	0	0	0	1	0	0	0
10	0	0	0	0	1	0	0	0	0	0	0
11	0	0	0	0	I	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