



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



Date 1/26/24

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.
1/26/2024	0	60	10.2		141		9		17		47		0			13		309		164.7	
1/26/2024	1	60	9.8		142		7		18		59		0			13		309		167.0	
1/26/2024	2	60	9.9		140		9		16		41		0			13		309		166.2	
1/26/2024	3	60	10.3		140		8		23		67		0	0		13		309	309	162.8	165.2
1/26/2024	4	60	10.3		145		15		33		55		1			13		310		165.7	
1/26/2024	5	60	10.3		142		17		26		34		0			13		310		168.4	
1/26/2024	6	60	10.3		140		15		32		53		1			13		309		165.1	
1/26/2024	7	60	10.2		141		12		23		48		1	1		13	13	309	309	166.7	166.5
1/26/2024	8	60	10.3		139		17		27		38		1			13		309		166.8	
1/26/2024	9	60	10.5		142		17		36		52		2			13		309		167.3	
1/26/2024	10	60	10.5		140		12		30		60		1			13		309		167.3	
1/26/2024	11	60	10.3		142		14		26		45		2	2		13		309	309	167.6	167.3
1/26/2024	12	60	10.1		145		7		29		74		4			13		310		168.9	
1/26/2024	13	60	10.3		137		9		23		61		1			13		309		166.3	
1/26/2024	14	60	10.4		142		2		19		91		0			14		309		166.9	
1/26/2024	15	60	10.4		140		10		44		77		1	2		13	13	309	309	166.5	167.1
1/26/2024	16	60	10.4		143		1		30		98		0			13		309		164.4	
1/26/2024	17	60	10.2		141		11		40		73		1			13		309		164.8	
1/26/2024	18	60	10.4		142		20		52		61		0			13		309		168.6	
1/26/2024	19	60	10.4		139		15		35		56		1	1		13		310	309	166.1	166.0
1/26/2024	20	60	10.3		140		16		34		52		1			13		309		166.5	
1/26/2024	21	60	10.3		142		17		32		47		1			13		309		166.4	
1/26/2024	22	60	10.5		139		16		27		40		1			13		309		167.0	
1/26/2024	23	60	10.4		143		11		23		51		0	0		13	13	310	309	166.2	166.5

Average:
Geometric Mean Average:

Limit:

141	10
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

63
≥ 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 1/26/24

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.
1/26/2024	0	60	9.7		141		0		21		100		7			14		310		162.5	
1/26/2024	1	60	9.8		139		0		18		100		6			14		310		166.8	
1/26/2024	2	60	9.8		141		0		19		100		6			14		310		167.2	
1/26/2024	3	60	9.8		139		0		11		100		6	6		14		310	310	167.0	165.9
1/26/2024	4	60	9.7		145		0		11		100		6			14		310		167.6	
1/26/2024	5	60	9.9		140		0		15		100		5			14		310		167.7	
1/26/2024	6	60	9.3		139		0		24		98		5			14		310		167.7	
1/26/2024	7	60	9.5		138		3		23		89		5	5		14	14	310	310	166.6	167.4
1/26/2024	8	60	9.7		141		2		26		94		6			14		310		167.9	
1/26/2024	9	60	9.9		140		2		32		95		6			15		310		167.5	
1/26/2024	10	60	9.8		139		0		26		100		6			14		310		167.5	
1/26/2024	11	60	9.9		140		0		25		100		6	6		15		310	310	168.1	167.7
1/26/2024	12	60	9.6		140		0		23		99		6			14		310		166.8	
1/26/2024	13	60	9.8		139		0		24		98		5			14		310		165.5	
1/26/2024	14	60	9.8		140		1		30		98		5			14		310		167.9	
1/26/2024	15	60	9.6		140		2		35		96		6	5		14	14	310	310	167.7	167.0
1/26/2024	16	60	9.5		141		0		33		99		6			14		310		166.7	
1/26/2024	17	60	9.6		139		0		29		99		5			14		310		166.5	
1/26/2024	18	60	9.7		135		0		28		100		4			14		310		167.3	
1/26/2024	19	60	9.6		142		0		25		100		5	5		14		310	310	167.8	167.1
1/26/2024	20	60	9.6		140		1		31		98		8			14		310		167.3	
1/26/2024	21	60	9.7		140		1		29		96		5			14		310		168.1	
1/26/2024	22	60	9.9		139		4		33		87		5			14		310		167.5	
1/26/2024	23	60	9.7		140		4		33		87		5	6		14	14	310	310	167.9	167.7

Average:
Geometric Mean Average:

Limit:

140	0
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

99
≥ 80% 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 26-Jan-2024

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	1	0	0	0	0	1	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	0	IC	4	IC	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	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	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



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 26-Jan-2024

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	IB	1	IB	1	1	1	1	1	1	
1	1	IB	1	1	1	1	1	IB	1	1	IB	1
2	1	1	1	1	IB	1	IB	1	1	1	1	1
3	1	1	1	1	1	IB	1	IB	1	1	1	1
4	1	IB	1	1	1	IB	1	IB	1	1	1	1
5	1	IB	1	IB	1	IB	1	IB	1	1	1	1
6	1	IC	5	IBC	1	1	IB	1	1	1	1	2
7	1	1	1	IB	1	1	1	IB	1	1	1	1
8	1	1	1	1	1	1	IB	1	1	1	1	1
9	1	1	1	IB	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	IB	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	IB	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1
23	1	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