



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



Date 1/16/24

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.
1/16/2024	0	60	9.6		142		13		20		34		0			13		309		165.7	
1/16/2024	1	60	9.3		142		5		19		74		1			13		310		165.0	
1/16/2024	2	60	9.9		138		7		22		68		0			13		308		164.0	
1/16/2024	3	60	9.8		134		9		21		56		6	2		13		308	309	160.0	163.7
1/16/2024	4	60	9.5		144		13		24		48		8			13		311		165.5	
1/16/2024	5	60	9.9		137		17		29		42		0			13		309		167.3	
1/16/2024	6	60	9.8		141		21		31		33		0			12		309		166.8	
1/16/2024	7	60	10.0		140		15		28		45		1	2		12	13	310	310	161.4	165.2
1/16/2024	8	60	9.8		143		18		28		37		2			13		309		165.1	
1/16/2024	9	60	10.0		139		17		32		48		2			13		309		128.0	
1/16/2024	10	60	10.0		140		15		21		30		2			13		311		164.0	
1/16/2024	11	60	10.0		143		8		17		51		2	2		12		309	310	160.4	154.4
1/16/2024	12	60	9.9		141		15		16		7		1			13		310		166.3	
1/16/2024	13	60	9.4		140		12		17		32		2			13		309		164.8	
1/16/2024	14	60	10.1		138		16		21		22		2			11		309		162.6	
1/16/2024	15	60	9.7		144		8		11		23		1	2		13	12	310	309	161.9	163.9
1/16/2024	16	60	9.4		140		5		7		30		1			13		310		164.5	
1/16/2024	17	60	9.5		138		7		10		27		2			13		309		160.6	
1/16/2024	18	60	9.7		141		9		8		0		1			12		310		164.7	
1/16/2024	19	60	9.6		143		9		10		5		0	1		12		309	310	165.8	163.9
1/16/2024	20	60	9.9		141		12		14		15		1			12		309		166.7	
1/16/2024	21	60	10.0		140		21		23		9		0			12		309		166.0	
1/16/2024	22	60	10.0		141		20		27		26		0			13		309		167.2	
1/16/2024	23	60	9.8		142		12		19		40		1	1		12	12	310	309	165.4	166.3

Average: Geometric Mean Average:	141	12	OR	36	see above	see above	see above	see above			
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 80% 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 1/16/24

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.
1/16/2024	0	60	10.3		140		6		23		74		61			13		310		163.2	
1/16/2024	1	60	10.0		138		1		17		95		8			13		310		164.4	
1/16/2024	2	60	10.1		140		3		19		86		8			13		310		167.6	
1/16/2024	3	60	10.1		140		3		19		83		8	21		13		310	310	167.2	165.6
1/16/2024	4	60	9.9		139		6		19		67		9			14		310		167.3	
1/16/2024	5	60	9.9		141		10		19		51		8			14		310		166.7	
1/16/2024	6	60	10.0		138		14		20		31		9			14		310		166.8	
1/16/2024	7	60	10.2		139		9		17		50		10	9		14	14	310	310	161.0	165.5
1/16/2024	8	60	10.0		140		7		17		63		9			14		310		166.1	
1/16/2024	9	60	10.1		139		2		13		87		8			15		310		164.5	
1/16/2024	10	60	10.1		140		3		16		84		9			14		310		124.3	
1/16/2024	11	60	10.2		140		4		17		75		8	9		15		310	310	165.9	155.2
1/16/2024	12	59	10.0		139		2		14		83		9			14		309		165.2	
1/16/2024	13	60	10.0		140		0		11		96		9			14		310		162.5	
1/16/2024	14	60	10.2		138		3		11		70		8			14		309		165.0	
1/16/2024	15	60	9.8		140		1		16		91		8	8		15	15	309	310	167.0	164.9
1/16/2024	16	60	9.7		140		2		16		90		8			14		310		167.5	
1/16/2024	17	60	9.9		141		11		31		64		9			14		310		167.6	
1/16/2024	18	60	10.2		138		5		19		75		9			14		310		166.1	
1/16/2024	19	60	10.1		140		7		21		64		10	9		14		310	310	165.1	166.6
1/16/2024	20	60	10.3		139		8		18		52		8			13		310		167.1	
1/16/2024	21	60	10.2		140		16		25		37		8			14		310		168.1	
1/16/2024	22	60	10.2		139		8		20		57		8			14		310		167.1	
1/16/2024	23	60	10.2		141		5		21		77		8	8		12	14	310	310	167.6	167.5

Average:
Geometric Mean Average:

Limit:

140	4
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

77
≥ 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 16-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	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	0	IC	5	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 16-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	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	0	IBC	5	IBC	1	1	1	1	1	1	2
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	I	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1
14	2	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