



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



Date 1/9/24

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.
1/9/2024	0	60	9.8		141		11		21		47		0			14		310		162.3	
1/9/2024	1	60	9.7		142		7		17		61		0			13		309		165.7	
1/9/2024	2	60	9.9		139		15		27		45		0			12		309		166.9	
1/9/2024	3	60	10.0		142		10		22		53		0		0	13		309	309	165.7	165.1
1/9/2024	4	60	10.0		144		11		20		44		0			13		310		163.5	
1/9/2024	5	60	9.9		140		8		20		60		0			13		310		164.9	
1/9/2024	6	60	9.8		142		13		20		35		0			13		309		164.8	
1/9/2024	7	60	9.7		142		8		11		26		1		0	13	13	310	310	166.2	164.8
1/9/2024	8	60	9.7		140		13		16		17		1			13		309		167.8	
1/9/2024	9	60	9.8		137		7		16		58		1			13		308		164.7	
1/9/2024	10	60	9.8		141		8		15		46		1			13		310		164.2	
1/9/2024	11	60	9.9		141		8		15		50		1		1	13		309	309	163.5	165.1
1/9/2024	12	60	9.9		141		10		18		46		0			13		309		165.8	
1/9/2024	13	60	9.9		141		4		14		70		0			13		310		165.3	
1/9/2024	14	60	9.7		141		4		9		58		0			14		310		164.2	
1/9/2024	15	60	9.6		140		12		13		4		1		0	13	13	309	309	166.2	165.4
1/9/2024	16	60	9.5		148		8		12		37		41			13		310		164.3	
1/9/2024	17	60	9.4		138		4		11		67		1			13		309		162.5	
1/9/2024	18	60	9.4		141		11		13		13		0			13		309		165.3	
1/9/2024	19	60	9.5		141		10		12		14		0		11	13		310	309	166.2	164.6
1/9/2024	20	60	9.2		140		14		16		11		0			13		310		166.1	
1/9/2024	21	60	9.1		139		14		15		6		1			13		309		167.0	
1/9/2024	22	60	9.3		142		10		9		0		0			13		309		165.8	
1/9/2024	23	60	9.0		138		7		12		43		5		2	13	13	310	309	165.5	166.1

Average:
Geometric Mean Average:

Limit:

141	9
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

41
≥ 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

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 1/9/24

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.
1/9/2024	0	60	9.8		139		1		19		96		7			14		310		166.2	
1/9/2024	1	60	9.9		139		1		18		96		7			13		310		165.5	
1/9/2024	2	60	9.8		139		0		19		98		7			13		310		167.2	
1/9/2024	3	60	9.9		139		2		21		92		7	7		13		310	310	166.6	166.4
1/9/2024	4	60	9.6		142		2		20		92		6			12		310		166.7	
1/9/2024	5	60	9.2		140		0		17		97		6			13		310		166.3	
1/9/2024	6	60	9.1		138		0		9		100		7			13		310		164.4	
1/9/2024	7	60	8.9		142		0		7		100		7	6		15	13	310	310	165.9	165.8
1/9/2024	8	60	9.3		139		0		10		100		7			14		310		165.8	
1/9/2024	9	60	8.7		140		0		11		100		7			13		310		166.3	
1/9/2024	10	60	9.3		139		0		12		100		9			14		310		164.3	
1/9/2024	11	37	6.6		104		33		22		0		144	42		14		309	310	119.8	154.0
1/9/2024	12	48	17.7		49		92	IBF	174	IBF	47	IBF	2472			14		283		4.8	
1/9/2024	13	60	17.3		60		53	IBF	225	IBF	76	IBF	1145			14		237		1.3	
1/9/2024	14	34	17.8		38		59	IBF	307	IBF	81	IBF	716			14		193		0.7	
1/9/2024	15	52	17.2		77		40	IBF	95	IBF	58	IBF	1120	1364		14	14	185	225	0.8	1.9
1/9/2024	16	45	17.8		94		36	IBF	89	IBF	59	IBF	1179			14		204		0.7	
1/9/2024	17	8	17.8	IF	35	IF	49	IF	259	IBF	81	IBF	880	IF		14		197		0.7	
1/9/2024	18	0	18.9	IF	12	IF	60	IF	253	IBF	76	IBF	429	IF		2		156		0.7	
1/9/2024	19	0	19.0	IF	1	IF	62	IF	310	IBF	80	IBF	386	IF	1179	0		135	204	0.7	0.7
1/9/2024	20	0	19.0	IF	5	IF	62	IF	227	IBF	73	IBF	434	IF		0		122		0.7	
1/9/2024	21	0	19.1	IF	6	IF	64	IF	237	IBF	73	IBF	450	IF		0		116		0.7	
1/9/2024	22	0	19.5	IF	0	IF	74	IF	338	IBF	78	IBF	297	IF		0		110		0.7	
1/9/2024	23	0	19.7	IF	0	IF	84	IF	270	IBF	69	IBF	205	IF	347	IF	14	104	113	0.6	0.7

Average: Geometric Mean Average:	115	1	OR	99	see above	see above	see above	see above
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 80% 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 09-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 09-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	2	2	2	1	1	1	1	1	1	1	1
1	1	1	2	2	1	1	2	1	1	1	1
2	1	2	2	2	2	2	2	2	1	2	1
3	2	2	2	2	2	2	2	1	1	2	1
4	1	1	1	1	1	2	1	2	1	2	1
5	1	1	1	1	1	1	1	2	1	1	1
6	0	IBC	6	IBC	1	1	1	1	1	1	2
7	1	1	2	1	2	1	2	2	1	1	1
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	1	IF	1	IF	1
12	1	1	1	1	1	IF	1	IF	1	IF	1
13	1	1	1	1	1	1	2	2	1	1	1
14	2	IF	2	IF	2	IF	2	IF	2	2	2
15	2	IF	2	IF	2	2	2	2	2	2	2
16	2	2	2	IF	2	IF	2	IF	2	2	2
17	2	2	2	IF	2	IF	2	IF	2	IF	2
18	2	IF	2	IF	2	IF	2	IF	2	IF	2
19	2	IF	2	IF	2	IF	2	IF	2	IF	2
20	2	IF	2	IF	2	IF	2	IF	2	IF	2
21	2	IF	2	IF	2	IF	2	IF	2	IF	2
22	2	IF	2	IF	2	IF	2	IF	2	IF	2
23	2	IF	2	IF	2	IF	2	IF	2	IF	2

Status Flags

I - Invalid C - Calibration F - Offline T - Out of Control ^ - Startup
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown