



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



Date 3/2/22

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.	4 Hr Block
3/2/2022	0	0	20.9	IF	26	IF	9	IF	138	IBF	94	IBF	0	IF			0		115		0.0	
3/2/2022	1	0	20.9	IF	26	IF	10	IF	145	IBF	93	IBF	0	IF			0		107		0.0	
3/2/2022	2	0	20.9	IF	26	IF	9	IF	154	IBF	94	IBF	0	IF			0		103		0.0	
3/2/2022	3	5	20.1	ICF	27	ICF	8	ICF	85	IBF	90	IBCF	1	ICF	0	ICF	0		100	106	0.0	0.0
3/2/2022	4	39	17.3		407		17		2	IBF	0	IBCF	24				3		115		0.0	
3/2/2022	5	60	16.9		420		16		3		0		23				13		152		1.6	
3/2/2022	6	60	15.3		341		14		1		0		4				13		190		25.7	
3/2/2022	7	60	12.6		234		8		1		0		0		13		14	11	230	172	48.7	19.0
3/2/2022	8	60	11.4		212		8		2		0		0				13		252		66.4	
3/2/2022	9	60	11.0		184		14		22		36		4				13		302		101.8	
3/2/2022	10	60	9.7		191		13		48		73		7				13		310		157.1	
3/2/2022	11	60	10.0		198		34		82		59		6		4		13		310	293	164.3	122.4
3/2/2022	12	60	9.8		200		7		38		81		6				13		309		168.1	
3/2/2022	13	60	10.1		198		31		65		53		5				14		309		166.5	
3/2/2022	14	60	10.1		198		17		38		57		5				13		309		166.0	
3/2/2022	15	60	10.0		194		14		44		69		4		5		13	13	309	309	167.3	167.0
3/2/2022	16	60	10.0		199		5		35		87		5				14		309		163.6	
3/2/2022	17	60	10.2		199		9		41		78		4				13		309		164.5	
3/2/2022	18	60	10.1		198		10		41		77		5				14		309		163.6	
3/2/2022	19	60	10.0		199		8		37		79		4		5		14		309	309	163.5	163.8
3/2/2022	20	60	10.1		197		14		42		66		4				14		309		163.0	
3/2/2022	21	60	10.0		198		23		50		55		4				14		310		164.4	
3/2/2022	22	60	10.0		196		12		33		65		4				13		309		164.1	
3/2/2022	23	60	10.1		195		8		29		71		3		4		14	14	309	309	163.7	163.8

Average:  
Geometric Mean Average:

Limit:

228	12
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

41
≥ 75% 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



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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.
3/2/2022	0	60	9.0		194		20		12		0		1			13		309		166.6	
3/2/2022	1	60	8.9		193		22		11		0		2			13		312		166.7	
3/2/2022	2	60	8.9		191		21		11		0		1			14		312		166.4	
3/2/2022	3	60	8.8		189		20		8		0		2	2		13		310	311	166.4	166.5
3/2/2022	4	60	8.8		178		16		15		0		3			13		305		166.7	
3/2/2022	5	60	8.9		189		16		13		0		1			14		305		166.7	
3/2/2022	6	60	9.0		186		22		7		0		1			13		312		166.8	
3/2/2022	7	60	9.1		185		26		23		0		2	2		13	13	307	307	166.8	166.7
3/2/2022	8	60	9.2		190		24		25		7		3			14		306		166.5	
3/2/2022	9	60	9.2		178		20		13		0		4			14		306		166.4	
3/2/2022	10	60	9.2		176		24		23		0		4			13		306		167.6	
3/2/2022	11	60	8.9		188		22		19		0		3	3		13		308	306	166.8	166.8
3/2/2022	12	60	9.1		176		16		24		32		4			13		301		165.1	
3/2/2022	13	60	9.4		176		33		53		38		2			14		306		166.9	
3/2/2022	14	60	9.2		188		23		30		22		2			14		310		166.5	
3/2/2022	15	60	9.2		181		12		12		2		2	2		13	13	310	307	166.4	166.2
3/2/2022	16	60	9.4		163		2		8		70		1			13		304		166.5	
3/2/2022	17	60	9.4		183		6		10		40		2			13		309		166.3	
3/2/2022	18	60	9.1		176		7		9		23		1			12		312		166.6	
3/2/2022	19	60	9.1		180		9		8		0		2	1		15		316	310	167.1	166.6
3/2/2022	20	60	9.2		174		6		7		12		2			13		304		165.8	
3/2/2022	21	60	9.1		177		16		12		0		1			13		301		167.4	
3/2/2022	22	60	9.2		185		20		11		0		1			13		301		166.4	
3/2/2022	23	60	9.2		176		18		15		0		1	1		14	13	302	302	166.7	166.6

Average:  
Geometric Mean Average:

Limit:

182	15
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

0
≥ 75% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

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# WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 02-Mar-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	IF	2	IF	2	IF	2	IF	2	IF	2
1	2	IF	2	IF	2	IF	2	IF	2	IF	2
2	2	IF	2	IF	2	IF	2	IF	2	IF	2
3	2	IF	2	IF	2	IF	2	IF	2	IF	2
4	2		2		2	IF	2	IF	2	IF	2
5	2		2		2		1		1		1
6	2	IC	6	IC	1		1		1		2
7	1		1		1		1		1		1
8	1		1		1		1		1		1
9	1		1		2		1		1		1
10	2		2		2		2		2		2
11	2		2		2		2		2		2
12	1		2		2		2		2		2
13	2		2		1		2		2		1
14	2		2		2		2		2		2
15	2		2		2		1		2		1
16	2		2		2		2		2		2
17	2		2		2		2		2		2
18	1		1		1		1		2		1
19	2		2		2		1		1		1
20	2		2		2		1		1		1
21	1		1		1		1		1		1
22	1		1		1		1		2		1
23	1		1		2		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



# WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 02-Mar-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	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	IBC	6	IBC	2	2	2	2	2	2	2
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

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 B - Bad                            M - Maintenance                      P - Purge                      E - Excluded                      \* - Shutdown