



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



Date 5/19/22

Wheel Plant Wheelabrator North Andover  
Unit 1 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
5/19/2022	0	0	20.9	IF	33	IF	9	IF	69	IBF	87	IBF	0	IF			1		76		0.0	
5/19/2022	1	0	20.9	IF	34	IF	9	IF	69	IBF	86	IBF	0	IF			1		75		0.0	
5/19/2022	2	0	20.9	IF	33	IF	10	IF	73	IBF	87	IBF	0	IF			1		73		0.0	
5/19/2022	3	0	20.1	ICF	30	ICF	9	ICF	77	IBF	88	IBCF	0	ICF	0	ICF	0		72	74	0.0	0.0
5/19/2022	4	0	17.2	IBCF	152	IBCF	66	IBCF	77	IBF	14	IBCF	516	IBCF			0		72		0.0	
5/19/2022	5	0	20.9	IF	32	IF	9	IF	144	IBCF	93	IBCF	0	IF			0		71		0.0	
5/19/2022	6	0	20.9	IF	35	IF	9	IF	75	IBF	88	IBF	0	IF			1		72		0.0	
5/19/2022	7	0	20.9	IF	36	IF	9	IF	76	IBF	88	IBF	0	IF	129	IBCF	0	1	72	72	0.0	0.0
5/19/2022	8	0	20.9	IF	38	IF	9	IF	84	IBF	89	IBF	0	IF			1		72		0.0	
5/19/2022	9	0	20.9	IF	37	IF	10	IF	96	IBF	90	IBF	0	IF			0		71		0.0	
5/19/2022	10	0	20.9	IF	37	IF	9	IF	97	IBF	91	IBF	0	IF			1		71		0.0	
5/19/2022	11	0	20.9	IF	38	IF	9	IF	92	IBF	90	IBF	0	IF	0	IF	1		72	71	0.0	0.0
5/19/2022	12	0	20.9	IF	38	IF	9	IF	89	IBF	90	IBF	0	IF			0		72		0.0	
5/19/2022	13	0	20.9	IF	38	IF	8	IF	84	IBF	90	IBF	0	IF			0		72		0.0	
5/19/2022	14	0	21.0	IF	37	IF	8	IF	115	IBF	93	IBF	0	IF			1		73		0.0	
5/19/2022	15	0	21.0	IF	37	IF	8	IF	132	IBF	94	IBF	0	IF	0	IF	1	1	73	72	0.0	0.0
5/19/2022	16	0	21.0	IF	37	IF	8	IF	153	IBF	95	IBF	0	IF			0		71		0.0	
5/19/2022	17	0	21.0	IF	38	IF	7	IF	169	IBF	96	IBF	0	IF			1		70		0.0	
5/19/2022	18	0	21.0	IF	38	IF	7	IF	200	IBF	96	IBF	0	IF			0		69		0.0	
5/19/2022	19	0	21.0	IF	38	IF	7	IF	205	IBF	96	IBF	0	IF	0	IF	0		69	70	0.0	0.0
5/19/2022	20	0	21.0	IF	38	IF	7	IF	215	IBF	97	IBF	0	IF			0		70		0.0	
5/19/2022	21	0	21.0	IF	38	IF	7	IF	224	IBF	97	IBF	0	IF			0		68		0.0	
5/19/2022	22	0	21.0	IF	38	IF	7	IF	224	IBF	97	IBF	0	IF			0		70		0.0	
5/19/2022	23	0	21.0	IF	39	IF	7	IF	240	IBF	97	IBF	0	IF	0	IF	0	0	75	71	0.0	0.0

Average:  
Geometric Mean Average:

Limit:

41 IBCF	9 IBCF
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

0 IBCF
≥ 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



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



Date 5/19/22

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.
5/19/2022	0	60	9.7		189		7		18		60		5			14		310		166.5	
5/19/2022	1	60	10.0		192		3		12		77		4			14		310		165.5	
5/19/2022	2	60	9.8		192		6		21		74		5			14		310		166.2	
5/19/2022	3	60	9.8		189		8		21		64		4	4		14		310	310	167.1	166.3
5/19/2022	4	60	9.7		186		5		25		79		4			14		310		165.5	
5/19/2022	5	60	9.8		188		6		22		75		1			14		310		164.9	
5/19/2022	6	60	10.3		191		4		9		52		4			14		310		158.3	
5/19/2022	7	60	10.0		181		1		0		0		2	3		14	14	310	310	163.8	163.1
5/19/2022	8	60	10.2		195		2		4		65		4			14		310		162.6	
5/19/2022	9	60	10.1		193		2		4		59		4			14		310		165.1	
5/19/2022	10	60	10.0		185		0		0		0		2			14		310		166.6	
5/19/2022	11	60	10.0		192		7		28		74		4	4		14		311	310	164.9	164.8
5/19/2022	12	60	9.9		192		4		18		79		3			14		309		165.8	
5/19/2022	13	60	9.8		194		2		6		66		3			14		310		165.8	
5/19/2022	14	60	9.9		189		1		3		56		1			14		310		165.3	
5/19/2022	15	60	9.7		192		1		2		68		2	2		14	14	310	310	165.4	165.6
5/19/2022	16	60	9.9		194		4		17		78		3			14		310		165.7	
5/19/2022	17	60	9.9		195		10		33		68		3			14		310		166.1	
5/19/2022	18	60	9.8		192		1		5		76		2			14		310		165.5	
5/19/2022	19	60	10.0		195		1		4		76		2	3		14		310	310	165.4	165.7
5/19/2022	20	60	10.2		186		4		15		73		2			14		310		165.0	
5/19/2022	21	60	10.1		192		8		20		60		2			14		310		165.1	
5/19/2022	22	60	10.0		194		6		19		68		2			14		310		166.5	
5/19/2022	23	60	9.9		196		3		11		77		2	2		14	14	310	310	165.3	165.5

Average: Geometric Mean Average:	191	3	<b>OR</b>	65	see above	see above	see above	see above			
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 75% 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

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



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

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



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



Date 19-May-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	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	4	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	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

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