



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



Date 5/23/22

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
5/23/2022	0	0	21.0	IBF	1	IBF	1	IBF	40	IBF	99	IBF	0	IBF			2		166		2.8	
5/23/2022	1	0	21.0	IBF	1	IBF	1	IBF	28	IBF	98	IBF	0	IBF			14		221		10.8	
5/23/2022	2	0	21.0	IBF	1	IBF	0	IBF	22	IBF	98	IBF	0	IBF			15		267		33.5	
5/23/2022	3	0	21.0	IBF	1	IBF	0	IBF	22	IBF	98	IBF	0	IBF	0	IBF	15		291	236	54.3	25.4
5/23/2022	4	6	21.0	IBF	0	IBF	0	IBF	26	IBF	99	IBF	0	IBF			15		295		75.2	
5/23/2022	5	0	21.0	IBF	0	IBF	0	IBF	28	IBCF	99	IBCF	0	IBF			15		293		63.7	
5/23/2022	6	24	16.2	IBCF	419	IBCF	43	IBCF	28	IBF	0	IBCF	0	IBCF			15		295		51.7	
5/23/2022	7	7	20.4	IBMF	14	IBMF	2	IBMF	28	IBF	93	IBMF	0	IBMF	0	IBMF	15	13	299	296	58.5	62.3
5/23/2022	8	40	17.6		634		91		60		0		681			15		289		39.4		
5/23/2022	9	60	13.5		271		34		43		21		2			15		291		74.5		
5/23/2022	10	60	10.9		154		19		73		73		18			15		298		132.1		
5/23/2022	11	60	11.0		182		16		59		73		11	178		15		299	294	137.7	95.9	
5/23/2022	12	60	11.1		190		9		57		85		7			15		299		134.3		
5/23/2022	13	60	11.8		190		4		45		90		10			15		299		120.3		
5/23/2022	14	60	10.7		186		5		47		90		7			15		299		135.8		
5/23/2022	15	60	10.1		196		13		69		82		7	8		15	15	300	299	159.5	137.5	
5/23/2022	16	60	10.0		199		23		57		60		11			15		300		166.2		
5/23/2022	17	60	10.4		198		17		51		67		10			15		299		164.8		
5/23/2022	18	60	10.4		198		9		48		81		10			15		299		162.5		
5/23/2022	19	60	10.4		194		35		50		30		8	10		15		299	299	165.8	164.8	
5/23/2022	20	60	10.4		198		32		45		29		7			15		299		165.2		
5/23/2022	21	60	10.4		200		22		49		55		8			15		299		164.1		
5/23/2022	22	60	10.6		191		23		49		53		8			15		299		159.6		
5/23/2022	23	60	10.9		192		12		46		74		8	8		15	15	299	299	149.6	159.6	

Average:
Geometric Mean Average:

Limit:

223	17
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

67
≥ 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 5/23/22

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.	4 Hr Block
5/23/2022	0																					
5/23/2022	1																					
5/23/2022	2																					
5/23/2022	3																					
5/23/2022	4																					
5/23/2022	5																					
5/23/2022	6																					
5/23/2022	7																					
5/23/2022	8																					
5/23/2022	9																					
5/23/2022	10																					
5/23/2022	11																					
5/23/2022	12																					
5/23/2022	13																					
5/23/2022	14																					
5/23/2022	15																					
5/23/2022	16																					
5/23/2022	17																					
5/23/2022	18																					
5/23/2022	19																					
5/23/2022	20																					
5/23/2022	21																					
5/23/2022	22																					
5/23/2022	23																					

Average:	180 ppmc	14 ppmc	38 %RE	OR	see above	see above	see above	
Geometric Mean Average:								
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean	≥ 75% 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 23-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
1	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
2	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
3	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
4	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
5	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
6	2	ICF	23	ICF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	4
7	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
8	2		2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	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

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 23-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	0	0	0	0	0	0	0	0	0	0	0
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

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