



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



Date 5/21/22

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
5/21/2022	0	0	21.0	IF	40	IF	7	IF	278	IBF	97	IBF	0	IF		0		70		0.0		
5/21/2022	1	0	21.0	IF	39	IF	7	IF	282	IBF	98	IBF	0	IF		0		70		0.0		
5/21/2022	2	0	21.0	IF	39	IF	7	IF	290	IBF	98	IBF	0	IF		0		69		0.0		
5/21/2022	3	5	20.2	ICF	36	ICF	7	ICF	300	IBF	98	IBCF	0	ICF	0	0	ICF	69	70	0.0	0.0	
5/21/2022	4	13	17.2	IBCF	180	IBCF	60	IBCF	304	IBF	80	IBCF	525	IBCF		0		69		0.0		
5/21/2022	5	0	21.0	IF	40	IF	7	IF	161	IBCF	96	IBCF	0	IF		0		69		0.0		
5/21/2022	6	0	21.1	IF	40	IF	7	IF	340	IBF	98	IBF	0	IF		3		69		0.0		
5/21/2022	7														175	IBCF		1		69	0.0	
5/21/2022	8																					
5/21/2022	9																					
5/21/2022	10																					
5/21/2022	11																					
5/21/2022	12																					
5/21/2022	13																					
5/21/2022	14																					
5/21/2022	15																					
5/21/2022	16	6	0.0	IBF	0	IBF	0	IBF	311	IBF	100	IBF	0	IBF		0		62		0.0		
5/21/2022	17	0	20.8	IBF	49	IBF	0	IBF	-2296	IBF	0	IBF	0	IBF		0		77		0.0		
5/21/2022	18	0	20.7	IBF	59	IBF	0	IBF	-44456	IBF	0	IBF	0	IBF		0		78		0.0		
5/21/2022	19	0	20.8	IBF	57	IBF	2	IBF	5869	IBF	100	IBF	0	IBF	0	0	IBF	78	74	0.0	0.0	
5/21/2022	20	0	21.1	IBF	53	IBF	6	IBF	5617	IBF	100	IBF	0	IBF		0		78		0.0		
5/21/2022	21	0	20.7	IBMF	51	IBMF	7	IBMF	7545	IBF	100	IBMF	1	IBMF		0		78		0.0		
5/21/2022	22	0	20.7	IBMF	48	IBMF	7	IBMF	8272	IBF	100	IBMF	2	IBMF		0		78		0.0		
5/21/2022	23	0	20.6	IBMF	49	IBMF	7	IBMF	5452	IBF	100	IBMF	2	IBMF	1	IBMF	0	0	78	78	0.0	0.0

Average: Geometric Mean Average:	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> 52 IBCMF </div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> 3 IBCMF </div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> 0 IBCMF </div>
Limit:	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> ≤ 205 24-HR Block Avg. </div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> ≤ 29 24-HR Geometric Mean </div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> $\geq 75\%$ Removal Efficiency </div>
	OR		
	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> see above ≤ 69 ppmc 4-HR Block Average </div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> see above ≤ 12 lb/hr 8-HR. Block Average </div>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> see above ≤ 345 °F 4-HR Block Average </div>
		<div style="border: 1px solid black; padding: 5px; display: inline-block;"> see above ≤ 173 klb/hr 4-HR Block Average </div>	

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 5/21/22

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
5/21/2022	0	0	20.8	IF	8	IF	6	IF	0	IBF	0	IBF	24	IF		0		276		0.0		
5/21/2022	1	0	20.8	IF	7	IF	7	IF	0	IBF	0	IBF	29	IF		0		262		0.0		
5/21/2022	2	0	20.9	IF	6	IF	6	IF	0	IBF	0	IBF	18	IF		0		242		0.0		
5/21/2022	3	5	20.1	ICF	5	ICF	6	ICF	0	IBF	0	IBCF	19	ICF	23	ICF	0	219	250	0.3	0.1	
5/21/2022	4	12	17.4	IBCF	84	IBCF	62	IBCF	0	IBF	0	IBCF	616	IBCF		0		218		0.3		
5/21/2022	5	0	20.9	IF	6	IF	6	IF	146	IBCF	96	IBCF	14	IF		0		205		0.3		
5/21/2022	6	0	20.9	IF	7	IF	7	IF	0	IF	0	IF	13	IF		0		202		0.7		
5/21/2022	7														215	IBCF	0		208		0.4	
5/21/2022	8																					
5/21/2022	9																					
5/21/2022	10																					
5/21/2022	11																					
5/21/2022	12																					
5/21/2022	13																					
5/21/2022	14																					
5/21/2022	15																					
5/21/2022	16																					
5/21/2022	17																					
5/21/2022	18																					
5/21/2022	19																					
5/21/2022	20																					
5/21/2022	21																					
5/21/2022	22																					
5/21/2022	23																					

Average:	18 IBCF	9 IBCF	0 IBCF	OR	see above	see above	see above
Geometric Mean Average:					≤ 69 ppmc	≤ 12 lb/hr	≤ 173 klb/hr
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean	≥ 75% Removal Efficiency		4-HR Block Average	8-HR. Block Average	4-HR Block Average

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 21-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		2		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	3	ICF	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		4	IC	3	IF	3	IF	3	IF	4	IF	1
17	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3
18	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3
19	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3	IF	3
20	3	IF	3	IF	3	IF	2	IF	2	IF	2	IF	2	IF	2	IF	3	IF	2	IF	2
21	3	IF	3	IF	3	IF	2	IF	3	IF	3	IF	3	IF	3	IF	2	IF	3	IF	2
22	2	IF	3	IF	3	IF	2	IF	3	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
23	2	IF	2	IF	2	IF	2	IF	2	IF	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



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 21-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	IF	0	IF	0	IF	0	IF	0	IF	0
1	0	IF	0	IF	0	IF	0	IF	0	IF	0
2	0	IF	0	IF	0	IF	0	IF	0	IF	0
3	0	IF	0	IF	0	IF	0	IF	0	IF	0
4	0		0		0	IF	0	IF	0	IF	0
5	0	IF	0	IF	0	IF	0	IF	0	IF	0
6	3	BCF	0		0		0		0		0
7	0		0		0		0		0		0
8	0		0		0		0		0		0
9	0		0		0		0		0		0
10	0		0		0		0		0		0
11	0		0		0		0		0		0
12	0		0		0		0		0		0
13	0		0		0		0		0		0
14	0		0		0		0		0		0
15	0		0		0		0		0		0
16	0		0		0		0		0		0
17	0		0		0		0		0		0
18	0		0		0		0		0		0
19	0		0		0		0		0		0
20	0		0		0		0		0		0
21	0		0		0		0		0		0
22	0		0		0		0		0		0
23	0		0		0		0		0		0

Status Flags

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