



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



Date 4/18/23

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.
4/18/2023	0	60	10.4		143		17		70		75		2			13		310		164.5	
4/18/2023	1	60	10.3		140		26		99		73		1			13		309		165.9	
4/18/2023	2	60	10.1		142		19		72		74		3			13		309		165.4	
4/18/2023	3	60	10.1		140		19		76		74		2	2		13		309	309	165.4	165.3
4/18/2023	4	60	10.1		144		21		86		75		2			13		309		164.9	
4/18/2023	5	60	10.0		139		17		74		77		3			13		309		165.3	
4/18/2023	6	60	9.7		142		10		53		82		7			13		310		166.5	
4/18/2023	7	60	9.6		136		13		49		73		2	3		16	13	309	309	166.3	165.8
4/18/2023	8	60	15.3	IBM	13	IBM	5	IBM	103	IBM	95	IBM	3	IBM		17		309		166.7	
4/18/2023	9	60	10.2		159		19		109		83		3			16		308		166.4	
4/18/2023	10	60	10.0		141		16		73		79		3			14		309		166.7	
4/18/2023	11	60	10.2		139		10		60		84		4	4		13		306	308	165.9	166.4
4/18/2023	12	60	9.8		144		4		64		93		3			13		309		165.6	
4/18/2023	13	60	9.9		141		15		75		80		4			13		309		165.6	
4/18/2023	14	60	10.0		139		12		77		84		3			13		309		164.4	
4/18/2023	15	60	9.9		142		11		70		85		3	3		13	14	310	309	166.6	165.6
4/18/2023	16	60	9.7		139		10		73		86		4			14		309		167.0	
4/18/2023	17	60	9.5		137		8		88		91		4			14		309		167.8	
4/18/2023	18	60	9.7		145		13		98		86		4			14		309		167.7	
4/18/2023	19	60	9.7		140		26		141		82		4	4		14		310	309	165.7	167.0
4/18/2023	20	60	9.7		142		33		157		79		4			14		309		167.4	
4/18/2023	21	60	9.7		139		17		99		83		3			14		309		165.8	
4/18/2023	22	60	9.6		141		18		97		82		3			14		309		166.0	
4/18/2023	23	60	9.6		140		19		88		79		3	3		15	14	310	309	165.6	166.2

Average:  
Geometric Mean Average:

Limit:

141	15
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

82
≥ 75% 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



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Date 4/18/23

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.
4/19/2023	0	60	11.1		141		7		21		66		0			13		310		166.5	
6/8/2021	1	60	10.0		186		14		26		47		3			13		309		164.8	
6/8/2021	2	60	10.0		183		14		20		33		3			13		309		163.1	
6/8/2021	3	60	9.7		183		14		23		38		3	4		13		310	309	164.6	165.1
6/8/2021	4	44	9.9		177		17		24		28		5			13		309		162.9	
6/8/2021	5																				
6/8/2021	6																				
6/8/2021	7												5			13		309		162.9	
6/8/2021	8																				
6/8/2021	9																				
6/8/2021	10																				
6/8/2021	11																				
6/8/2021	12																				
6/8/2021	13																				
6/8/2021	14																				
6/8/2021	15																				
6/8/2021	16																				
6/8/2021	17																				
6/8/2021	18																				
6/8/2021	19																				
6/8/2021	20																				
6/8/2021	21																				
6/8/2021	22																				
6/8/2021	23																				

Average: Geometric Mean Average:	<b>139</b>	<b>9</b>	OR	<b>51</b>	see above	see above	see above	
Limit:	<b>≤ 205</b> 24-HR Block Avg.	<b>≤ 29</b> 24-HR Geometric Mean		<b>≥ 75%</b> Removal Efficiency	<b>≤ 69</b> ppmc 4-HR Block Average	<b>≥ 12</b> lb/hr 8-HR. Block Average	<b>≤ 345</b> °F 4-HR Block Average	<b>≤ 173</b> klb/hr 4-HR Block Average

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



Date 18-Apr-2023

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

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



Date 18-Apr-2023

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	3	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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