



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



Date 6/4/24

Plant Wheelabrator North Andover

NOTE: Emission & Process results may change after Startup, Shutdown, Malfunction data validation

Unit Unit 1  
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.
6/4/2024	0	60	10.2		142		10		34		72		0			13		309		167.5	
6/4/2024	1	60	10.3		139		18		39		53		0			13		309		166.7	
6/4/2024	2	60	10.3		141		18		47		63		0			14		310		166.5	
6/4/2024	3	60	10.2		143		17		33		49		0	0		14		309	309	167.7	167.1
6/4/2024	4	60	10.0		145		11		40		73		0			13		310		166.8	
6/4/2024	5	60	10.2		139		18		51		66		0			13		309		165.6	
6/4/2024	6	60	10.4		142		22		71		70		0			13		310		165.2	
6/4/2024	7	60	10.1		143		19		55		66		0	0		14	13	309	309	165.8	165.9
6/4/2024	8	60	10.3		139		13		65		79		0			13		309		167.2	
6/4/2024	9	60	10.6		140		12		57		79		0			13		309		167.6	
6/4/2024	10	60	10.6		145		19		69		72		0			13		309		167.5	
6/4/2024	11	60	10.5		140		13		72		82		0	0		13		309	309	167.1	167.4
6/4/2024	12	60	10.5		141		19		67		72		0			13		310		167.2	
6/4/2024	13	60	10.4		141		17		69		75		0			13		309		166.2	
6/4/2024	14	60	10.4		139		17		83		80		0			13		309		167.3	
6/4/2024	15	60	10.3		143		17		70		75		0	0		13	13	310	309	167.1	167.0
6/4/2024	16	60	10.4		141		18		55		67		0			13		309		167.2	
6/4/2024	17	60	10.4		141		15		53		72		0			13		310		165.9	
6/4/2024	18	60	10.5		136		19		77		75		0			13		309		167.0	
6/4/2024	19	60	10.4		144		18		68		73		0	0		13		310	309	166.8	166.7
6/4/2024	20	60	10.2		142		18		67		74		0			13		309		167.9	
6/4/2024	21	60	10.3		139		15		64		77		0			13		309		166.8	
6/4/2024	22	60	10.4		140		17		62		72		0			13		309		166.2	
6/4/2024	23	60	10.3		144		18		61		70		0	0		13	13	309	309	168.3	167.3

Average: Geometric Mean Average:	141	16	<b>OR</b>	72	see above	see above	see above	see above
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 80% 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

**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 6/4/24

Plant Wheelabrator North Andover

NOTE: Emission & Process results may change after Startup, Shutdown, Malfunction data validation

Unit Unit 2

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.
6/4/2024	0	60	9.7		141		2		22		89		5			14		310		167.4	
6/4/2024	1	60	9.8		138		16		37		58		5			14		310		166.7	
6/4/2024	2	60	9.8		140		13		30		59		5			14		310		168.1	
6/4/2024	3	60	9.9		139		11		30		62		4	5		14		310	310	166.7	167.2
6/4/2024	4	60	10.0		140		18		34		49		5			14		310		167.1	
6/4/2024	5	60	9.9		140		24		45		47		5			13		310		167.1	
6/4/2024	6	60	10.1		138		14		29		54		5			13		310		166.0	
6/4/2024	7	60	10.1		138		9		27		67		5	5		14	14	310	310	165.3	166.4
6/4/2024	8	60	10.5		132		4		38		89		4			13		310		163.6	
6/4/2024	9	60	10.1		137		1		44		97		4			13		310		168.2	
6/4/2024	10	60	10.0		138		1		43		97		5			14		310		167.1	
6/4/2024	11	60	9.8		139		1		39		98		5	4		13		310	310	167.1	166.5
6/4/2024	12	60	9.9		141		0		52		100		5			14		310		165.8	
6/4/2024	13	60	9.7		139		3		45		94		5			14		310		166.7	
6/4/2024	14	60	9.8		139		7		62		88		5			13		310		168.0	
6/4/2024	15	60	9.6		140		4		55		94		5	5		14	14	310	310	166.9	166.9
6/4/2024	16	60	9.5		140		10		60		84		5			13		310		167.4	
6/4/2024	17	60	9.6		140		11		62		83		5			14		310		167.7	
6/4/2024	18	60	9.8		138		14		74		82		5			14		310		167.3	
6/4/2024	19	60	9.8		139		12		74		84		4	5		14		310	310	167.6	167.5
6/4/2024	20	60	9.8		141		16		75		79		5			14		310		167.6	
6/4/2024	21	60	9.9		139		18		63		72		4			13		310		167.2	
6/4/2024	22	60	9.8		142		6		53		88		4			14		310		167.5	
6/4/2024	23	60	9.9		140		9		58		84		4	4		14	14	310	310	166.8	167.3

Average: Geometric Mean Average:	<b>139</b>	<b>6</b>	<b>OR</b>	<b>87</b>	see above	see above	see above	see above
Limit:	<b>≤ 150</b> 24-HR Block Avg.	<b>≤ 29</b> 24-HR Geometric Mean		<b>≥ 80%</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 04-Jun-2024

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	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	IC	4	IC	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

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



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Date 04-Jun-2024

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	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	1	IC	6	IC	1	1	1	1	1	1	2
7	1	1	1	1	1	2	1	2	1	2	1
8	2	2	2	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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