



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



Date 2/27/24

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.
2/27/2024	0	60	11.3		143		13		11		0		1			13		309		167.6	
2/27/2024	1	60	11.4		139		19		15		0		1			13		309		167.8	
2/27/2024	2	60	11.4		141		19		18		0		1			13		310		167.0	
2/27/2024	3	60	11.5		142		18		18		1		0	1		13		310	309	166.9	167.3
2/27/2024	4	60	11.6		139		14		18		23		0			13		309		167.2	
2/27/2024	5	60	11.5		144		17		18		8		0			12		310		166.1	
2/27/2024	6	60	11.2		142		15		18		14		1			13		310		166.7	
2/27/2024	7	60	11.3		140		20		26		25		0	0		13	13	309	309	167.7	166.9
2/27/2024	8	60	11.4		141		20		18		0		1			13		309		165.5	
2/27/2024	9	60	11.5		139		18		31		40		1			13		309		165.7	
2/27/2024	10	60	11.6		139		13		27		53		1			13		308		167.8	
2/27/2024	11	60	11.1		145		10		23		56		0	1		13		311	309	162.7	165.4
2/27/2024	12	60	10.9		142		13		17		24		8			14		310		163.7	
2/27/2024	13	60	11.0		141		29		30		3		0			13		310		165.6	
2/27/2024	14	60	11.2		139		22		27		18		0			13		309		166.6	
2/27/2024	15	60	11.0		140		17		24		27		0	2		13	13	309	309	167.4	165.8
2/27/2024	16	60	11.0		143		14		20		30		0			13		309		167.2	
2/27/2024	17	60	11.1		140		14		26		44		0			13		309		167.2	
2/27/2024	18	60	11.3		137		10		24		57		0			13		309		166.3	
2/27/2024	19	60	11.1		144		16		30		46		0	0		13		310	309	166.7	166.9
2/27/2024	20	60	11.0		139		17		25		31		0			13		309		166.5	
2/27/2024	21	60	11.1		142		16		27		39		0			13		310		167.4	
2/27/2024	22	60	11.3		140		15		29		47		1			13		309		166.7	
2/27/2024	23	60	11.3		141		23		33		30		1	1		13	13	309	309	167.4	167.0

Average: Geometric Mean Average:	141	16	<b>OR</b>	27	see above	see above	see above	see above			
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 80% Removal Efficiency	≤ 69 4-HR Block Average	ppmc	≥ 12 8-HR. Block Average	lb/hr	≤ 345 °F 4-HR Block Average	klb/hr	≤ 173 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 2/27/24

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.
2/27/2024	0	60	10.0		138		8		50		85		5			13		310		167.6	
2/27/2024	1	60	9.9		139		4		37		90		5			12		310		167.3	
2/27/2024	2	60	9.9		138		0		31		99		4			12		310		167.5	
2/27/2024	3	60	10.0		137		2		28		94		4	4		13		310	310	167.9	167.6
2/27/2024	4	60	9.9		131		2		32		94		4			14		310		167.0	
2/27/2024	5	60	10.0		133		2		34		93		3			16		310		167.6	
2/27/2024	6	60	9.9		138		1		27		98		4			16		310		167.0	
2/27/2024	7	60	9.8		137		1		31		98		5	4		14	14	310	310	167.7	167.3
2/27/2024	8	60	9.9		139		0		27		99		5			14		310		167.2	
2/27/2024	9	60	9.9		139		0		19		98		5			14		310		168.3	
2/27/2024	10	60	10.0		141		43		142		69		5			14		310		166.7	
2/27/2024	11	60	9.5		137		16		74		78		5	5		14		310	310	166.3	167.1
2/27/2024	12	60	9.4		141		1		29		98		5			13		310		166.8	
2/27/2024	13	60	9.4		140		1		23		96		5			14		310		168.3	
2/27/2024	14	60	9.7		138		1		30		97		5			13		310		165.6	
2/27/2024	15	60	9.7		138		2		41		96		4	4		11	13	310	310	168.1	167.2
2/27/2024	16	60	9.3		142		1		41		98		4			11		310		168.1	
2/27/2024	17	60	9.4		139		1		41		97		3			12		310		167.5	
2/27/2024	18	60	9.4		141		1		42		97		4			13		310		167.3	
2/27/2024	19	60	9.4		137		1		39		98		4	4		13		310	310	167.6	167.6
2/27/2024	20	60	9.5		140		1		35		98		4			13		310		167.6	
2/27/2024	21	60	9.3		140		1		35		99		4			13		310		167.6	
2/27/2024	22	60	9.3		142		1		46		99		5			13		310		168.3	
2/27/2024	23	60	9.5		138		1		51		98		4	4		13	13	310	310	167.6	167.8

Average: Geometric Mean Average:	<b>138</b>	<b>1</b>	<b>OR</b>	<b>97</b>	<b>see above</b>	<b>see above</b>	<b>see above</b>	
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 27-Feb-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	1	1	1	0	0	1	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	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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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	2	2	2	2	2	2	2	2	2	2										
1	2	2	2	2	2	2	2	2	2	2	2										
2	2	2	2	2	2	2	2	2	2	2	2										
3	2	2	2	2	2	2	2	2	2	2	2										
4	2	2	2	2	2	2	2	2	2	2	2										
5	2	2	2	2	2	2	2	2	2	2	2										
6	1	IC	6	IC	2	2	2	2	2	2	2										
7	2	2	2	2	2	2	2	2	2	2	2										
8	2	2	2	2	2	2	2	2	2	2	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	IM	8	IM	15	IM	11	IM	15	IM	8	IM	6				
17	14	IM	12	IM	14	IM	11	IM	15	IM	10	IM	0	IM	23	IM	1	IM	10	IM	10
18	1	2	1	1	1	1	1	2	1	2	1	2	1	2	1	2	1	1	1	1	
19	2	1	1	2	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2	1	
20	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
22	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
23	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	

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