



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



Date 3/17/24

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.
3/17/2024	0	60	10.3		142		18		44		60		0			13		309		168.3	
3/17/2024	1	60	10.1		141		19		56		65		0			13		310		166.3	
3/17/2024	2	60	10.2		141		19		47		59		0			13		309		166.6	
3/17/2024	3	60	10.3		141		19		54		64		0			13		309	309	167.5	167.2
3/17/2024	4	60	10.3		141		24		78		69		0			13		310		166.0	
3/17/2024	5	60	10.4		142		23		42		46		0			13		309		166.6	
3/17/2024	6	60	10.3		139		27		77		65		0			14		309		166.8	
3/17/2024	7	60	10.3		141		20		58		65		0			13	13	309	309	166.0	166.3
3/17/2024	8	60	10.3		142		21		54		61		0			13		309		167.2	
3/17/2024	9	60	10.2		141		23		70		67		0			13		310		166.6	
3/17/2024	10	60	10.2		141		25		54		54		0			13		309		167.9	
3/17/2024	11	60	10.4		140		25		68		63		0			14		309	309	166.8	167.1
3/17/2024	12	60	10.3		142		21		43		52		0			12		309		167.4	
3/17/2024	13	60	10.3		140		21		55		61		0			13		310		166.2	
3/17/2024	14	60	10.3		141		22		57		62		0			12		309		166.1	
3/17/2024	15	60	10.2		141		26		77		66		0			14	13	309	309	165.7	166.4
3/17/2024	16	60	10.3		141		21		50		58		0			11		309		167.9	
3/17/2024	17	60	10.7		141		26		58		55		0			12		309		168.3	
3/17/2024	18	60	10.8		138		30		51		41		0			15		310		167.5	
3/17/2024	19	60	10.7		143		18		37		51		0			14		309	309	168.7	168.1
3/17/2024	20	60	10.6		140		19		42		54		0			11		309		168.0	
3/17/2024	21	60	10.4		143		17		35		51		0			12		310		163.5	
3/17/2024	22	60	10.2		137		16		35		55		15			23		309		165.2	
3/17/2024	23	60	9.9		141		17		36		52		0		4	14	14	309	309	167.9	166.2

Average: Geometric Mean Average:	141	21	<b>OR</b>	59	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 | C - Calibration | F - Offline | T - Out of Control | ^ - Startup  |
| B - Bad     | M - Maintenance | P - Purge   | E - Excluded       | * - Shutdown |



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Date 3/17/24

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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.
3/17/2024	0	60	10.3		140		0		41		100		5			14		310		167.3	
3/17/2024	1	60	10.2		141		1		62		98		5			14		310		167.6	
3/17/2024	2	60	10.2		137		1		59		99		5			13		310		167.5	
3/17/2024	3	60	10.1		141		2		68		97		5	5		13		310	310	167.7	167.6
3/17/2024	4	60	10.1		144		19		87		78		5			13		310		167.7	
3/17/2024	5	60	10.3		141		4		44		90		5			13		310		166.6	
3/17/2024	6	60	10.2		137		10		43		76		5			13		310		167.6	
3/17/2024	7	60	10.1		141		8		55		85		5	5		13	13	310	310	167.2	167.3
3/17/2024	8	60	10.1		138		12		59		79		4			13		310		168.0	
3/17/2024	9	60	10.0		140		8		57		85		5			13		310		167.9	
3/17/2024	10	60	9.8		141		1		39		98		5			13		310		167.4	
3/17/2024	11	60	9.9		138		2		48		95		5	5		13		310	310	166.6	167.5
3/17/2024	12	60	10.0		140		4		58		92		5			13		310		167.1	
3/17/2024	13	60	9.9		140		13		66		80		4			14		310		168.5	
3/17/2024	14	60	10.0		139		10		60		84		5			14		310		167.1	
3/17/2024	15	60	10.0		138		6		56		89		4	5		14	14	310	310	167.6	167.6
3/17/2024	16	60	10.1		141		6		52		88		5			12		310		167.3	
3/17/2024	17	60	10.5		141		19		73		74		4			14		310		168.4	
3/17/2024	18	60	10.5		140		12		61		80		5			14		310		167.2	
3/17/2024	19	60	10.3		136		3		56		94		5	5		14		310	310	167.4	167.6
3/17/2024	20	60	10.3		141		1		47		99		5			14		310		167.1	
3/17/2024	21	60	10.3		139		0		48		100		5			15		310		167.7	
3/17/2024	22	60	10.2		143		0		51		99		5			21		310		167.7	
3/17/2024	23	60	10.2		139		1		52		98		5	5		15	15	310	310	166.3	167.2

Average: Geometric Mean Average:	140	3	<b>OR</b>	95	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	klb/hr

**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 OPACITY REPORT



Date 17-Mar-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	1	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

**Status Flags**

I - Invalid                      C - Calibration                      F - Offline                      T - Out of Control                      ^ - Startup  
 B - Bad                            M - Maintenance                      P - Purge                            E - Excluded                            \* - Shutdown



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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	2	2	2	2	2	2	2	1	2	2	2
1	2	1	1	1	2	1	1	2	1	1	1
2	2	2	2	2	2	1	2	2	1	1	1
3	2	1	1	2	2	2	2	2	2	2	1
4	2	1	2	1	1	1	2	2	2	1	1
5	2	2	2	1	1	2	2	2	2	2	1
6	1	IC	6	IC	2	2	1	1	2	2	2
7	2	1	2	2	2	2	2	1	2	2	1
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	1	1	2	2	2	2	2	1
13	2	2	2	2	2	2	2	2	2	2	2
14	2	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1
16	2	1	1	2	1	2	2	2	1	2	1
17	2	2	2	2	2	2	2	2	2	2	2
18	2	2	2	2	1	1	2	1	1	1	1
19	1	2	1	2	2	2	2	2	2	2	1
20	2	1	1	1	2	1	2	2	2	1	1
21	2	2	2	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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