



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



Date 5/20/24

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.
5/20/2024	0	60	10.2		141		2		54		96		0			18		309		165.2	
5/20/2024	1	60	10.3		140		1		41		97		0			16		309		167.4	
5/20/2024	2	60	10.2		142		1		47		99		0			14		310		166.5	
5/20/2024	3	60	10.1		141		1		41		98		0	0		13		309	309	166.7	166.4
5/20/2024	4	60	10.0		141		0		41		99		0			13		310		165.4	
5/20/2024	5	60	10.1		141		1		41		99		0			13		309		166.1	
5/20/2024	6	60	10.1		142		1		38		98		0			13		310		166.9	
5/20/2024	7	60	10.2		141		0		36		99		0	0		13	14	309	309	167.2	166.4
5/20/2024	8	60	10.3		141		2		52		95		0			13		309		167.2	
5/20/2024	9	60	10.4		140		5		46		90		0			13		309		167.2	
5/20/2024	10	60	10.4		142		1		35		97		0			13		309		165.7	
5/20/2024	11	60	10.3		141		18		52		66		0	0		13		309	309	167.4	166.9
5/20/2024	12	60	10.5		134		14		46		69		2			13		309		159.8	
5/20/2024	13	60	10.1		143		16		42		62		0			13		311		163.9	
5/20/2024	14	60	10.2		140		20		42		53		0			13		309		166.8	
5/20/2024	15	60	10.3		142		22		34		35		0	1		13	13	309	309	165.9	164.1
5/20/2024	16	60	10.2		140		30		59		49		1			13		309		168.2	
5/20/2024	17	60	10.5		139		32		59		47		0			13		309		166.8	
5/20/2024	18	60	10.5		142		25		48		49		0			13		309		165.1	
5/20/2024	19	60	10.3		141		8		42		81		0	0		13		309	309	167.0	166.8
5/20/2024	20	60	10.3		142		10		47		78		0			13		309		166.1	
5/20/2024	21	60	10.2		141		13		43		70		0			13		310		168.0	
5/20/2024	22	60	10.2		140		11		39		71		0			13		309		167.0	
5/20/2024	23	60	10.2		141		6		40		85		0	0		13	13	310	309	167.3	167.1

Average: Geometric Mean Average:	141	4	<b>OR</b>	90	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



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



Date 5/20/24

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.
5/20/2024	0	60	10.6		136		0		34		100		4			13		310		166.4	
5/20/2024	1	60	10.6		143		0		35		100		4			13		310		168.1	
5/20/2024	2	60	10.5		138		3		60		95		4			13		310		167.9	
5/20/2024	3	60	10.5		139		0		38		100		5	4		13		310	310	167.8	167.5
5/20/2024	4	60	10.7		142		0		43		99		4			13		310		166.9	
5/20/2024	5	60	10.6		139		5		50		89		4			13		310		166.9	
5/20/2024	6	60	10.2		139		0		33		100		4			13		310		166.0	
5/20/2024	7	60	10.4		140		0		31		100		3	4		13	13	310	310	165.7	166.4
5/20/2024	8	60	10.8		140		0		33		100		4			13		310		166.1	
5/20/2024	9	60	10.4		140		0		40		100		5			13		310		168.1	
5/20/2024	10	60	10.4		139		0		27		100		5			13		310		166.8	
5/20/2024	11	60	10.4		139		0		44		100		5	5		14		310	310	167.3	167.1
5/20/2024	12	60	10.1		140		1		49		99		5			13		310		166.0	
5/20/2024	13	60	10.3		141		0		43		100		5			13		310		168.3	
5/20/2024	14	60	10.6		139		0		34		100		5			13		310		166.5	
5/20/2024	15	60	10.4		139		0		34		100		6	5		13	13	310	310	167.8	167.2
5/20/2024	16	60	10.5		141		0		43		99		5			14		310		167.5	
5/20/2024	17	60	10.4		138		0		42		100		5			13		310		167.9	
5/20/2024	18	60	10.5		140		0		38		100		5			13		310		167.2	
5/20/2024	19	60	10.5		139		0		41		100		5	5		13		310	310	167.6	167.5
5/20/2024	20	60	10.6		139		1		45		98		5			13		310		166.7	
5/20/2024	21	60	10.6		140		3		52		94		5			13		310		167.0	
5/20/2024	22	60	10.8		139		0		37		100		4			13		310		167.0	
5/20/2024	23	60	10.7		140		1		31		97		21	9		13	13	310	310	167.3	167.0

Average: Geometric Mean Average:	140	0	<b>OR</b>	100	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



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



Date 20-May-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

**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 20-May-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	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	2	2	2	2	2	2
17	2	2	2	2	2	2	2	2	2	2	2
18	2	2	2	2	2	2	2	2	2	2	2
19	2	2	2	2	2	2	2	2	2	2	2
20	2	2	2	2	2	2	2	2	2	2	2
21	2	2	2	2	2	2	2	2	2	2	2
22	2	2	2	2	2	2	2	2	2	2	2
23	2	2	2	2	2	2	2	2	2	2	2

**Status Flags**

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