



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



Date 3/15/24

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.
3/15/2024	0	60	10.0		134		70		55		0		12			13		308		165.8	
3/15/2024	1	60	10.2		141		11		45		77		1			13		309		167.3	
3/15/2024	2	60	10.2		140		7		34		78		10			13		309		166.7	
3/15/2024	3	60	10.2		139		7		34		80		3	7		12		310	309	165.8	166.4
3/15/2024	4	60	9.9		141		5		27		82		1			13		309		167.6	
3/15/2024	5	60	9.9		139		5		31		83		1			13		309		167.8	
3/15/2024	6	60	10.3		142		3		24		86		0			13		309		163.0	
3/15/2024	7	60	10.1		141		7		17		57		2	1		13	13	309	309	169.5	167.0
3/15/2024	8	60	10.5		141		9		20		55		1			13		308		169.6	
3/15/2024	9	60	10.2		141		20		86		77		3			13		309		166.0	
3/15/2024	10	60	10.1		141		9		45		79		2			13		309		167.6	
3/15/2024	11	60	10.3		140		11		31		65		1	2		13		309	309	168.2	167.8
3/15/2024	12	60	10.3		141		19		28		33		1			13		310		166.4	
3/15/2024	13	60	10.1		142		20		26		23		3			13		309		162.9	
3/15/2024	14	60	9.5		128		12		33		64		139			13		308		158.3	
3/15/2024	15	60	9.7		138		7		35		80		5	37		13	13	311	309	160.2	161.9
3/15/2024	16	60	9.6		142		15		41		63		2			13		310		163.0	
3/15/2024	17	60	9.7		141		15		39		61		1			13		309		163.7	
3/15/2024	18	60	9.7		141		13		37		65		9			13		309		162.8	
3/15/2024	19	60	9.6		138		15		37		60		4	4		13		309	309	163.6	163.3
3/15/2024	20	60	9.8		141		11		43		75		1			13		309		163.9	
3/15/2024	21	60	9.9		141		22		64		65		1			13		309		164.6	
3/15/2024	22	60	9.7		141		18		61		70		1			13		310		164.9	
3/15/2024	23	60	9.9		140		23		78		71		0	1		13	13	309	309	166.2	164.9

Average:
Geometric Mean Average:

Limit:

140	12
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

68
≥ 80% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

see above
≥ 12 lb/hr 8-HR. Block Average

see above
≤ 345 °F 4-HR Block Average

see above
≤ 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 3/15/24

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.
3/15/2024	0	60	9.9		138		12		20		38		7			15		310		167.5	
3/15/2024	1	60	9.8		138		7		20		64		6			15		310		168.1	
3/15/2024	2	60	10.0		139		1		18		96		6			14		310		166.9	
3/15/2024	3	60	9.9		132		1		26		96		7	6		14		310	310	167.6	167.5
3/15/2024	4	60	9.9		139		0		18		99		3			15		310		167.3	
3/15/2024	5	60	9.9		136		1		17		96		2			14		310		168.0	
3/15/2024	6	60	9.9		142		0		13		100		2			15		310		167.0	
3/15/2024	7	60	10.1		133		3		15		79		3	2		14	14	310	310	167.0	167.3
3/15/2024	8	60	10.4		124		3		20		87		3			13		310		166.7	
3/15/2024	9	60	9.9		141		0		10		100		5			13		310		167.7	
3/15/2024	10	60	10.1		138		1		14		92		2			13		309		168.1	
3/15/2024	11	60	10.3		135		1		19		94		1	3		14		310	310	168.3	167.7
3/15/2024	12	60	10.2		138		8		31		75		1			13		310		167.0	
3/15/2024	13	60	10.1		130		4		33		89		5			13		310		165.6	
3/15/2024	14	60	10.4		131		25		49		50		3			14		309		169.9	
3/15/2024	15	60	10.2		139		2		42		96		3	3		13	13	310	310	167.1	167.4
3/15/2024	16	60	9.9		137		0		30		100		3			13		310		166.9	
3/15/2024	17	60	9.9		139		0		48		100		3			14		310		167.6	
3/15/2024	18	60	10.0		141		0		37		100		3			14		310		167.2	
3/15/2024	19	60	9.9		138		0		31		100		2	3		14		310	310	167.7	167.3
3/15/2024	20	60	10.0		141		0		40		100		2			13		310		166.5	
3/15/2024	21	60	9.9		139		0		48		100		2			14		310		167.6	
3/15/2024	22	60	10.0		139		1		50		98		3			14		310		167.4	
3/15/2024	23	60	9.9		141		0		48		100		2	2		14	14	310	310	167.4	167.2

Average: Geometric Mean Average:	137	1	OR	99	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 15-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



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 15-Mar-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	1	2	2	2	2	2	2	2	1
3	2	2	2	2	1	2	2	2	2	2	1
4	2	2	2	2	2	1	1	1	2	1	1
5	2	2	2	2	2	2	2	2	1	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	1	2	1	1	2	2	2	1	1
9	2	2	1	1	2	2	1	1	2	2	1
10	2	2	1	1	1	1	2	2	1	1	1
11	2	1	2	2	1	1	1	1	1	1	1
12	1	2	2	2	2	1	1	1	1	1	1
13	1	2	1	2	2	2	2	2	2	2	1
14	1	1	2	2	2	2	2	2	2	2	1
15	1	1	1	1	2	2	2	2	2	2	1
16	2	2	1	2	1	2	2	1	2	2	1
17	2	2	2	2	2	2	2	1	2	2	2
18	2	2	2	2	2	2	1	1	1	2	1
19	1	1	1	2	2	2	2	2	2	2	1
20	1	2	2	2	2	2	2	2	2	2	1
21	2	2	2	2	2	2	2	2	2	2	2
22	1	2	2	2	2	2	2	2	2	2	1
23	2	2	1	1	2	2	2	2	2	2	1

Status Flags

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