



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



Date 6/27/24

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.
6/27/2024	0	58	10.0		141		10		69		85		0			13		310		168.4	
6/27/2024	1	60	10.4		140		13		67		81		0			12		309		165.9	
6/27/2024	2	60	10.2		141		18		88		79		0			17		310		166.0	
6/27/2024	3	60	10.2		142		11		73		85		0	0		18		310	310	167.8	167.0
6/27/2024	4	60	10.1		145		7		68		90		0			15		309		168.5	
6/27/2024	5	60	10.1		141		8		84		90		0			15		309		167.2	
6/27/2024	6	60	9.7		139		6		83		92		0			14		310		166.4	
6/27/2024	7	60	10.2		140		0		47		99		0	0		14	15	311	310	167.0	167.3
6/27/2024	8	60	10.6		139		2		54		96		0			14		310		169.1	
6/27/2024	9	60	11.3		142		4		56		93		0			14		309		170.5	
6/27/2024	10	60	11.6		138		10		55		81		0			13		309		165.2	
6/27/2024	11	60	11.1		145		25		72		65		0	0		13		310	309	165.7	167.6
6/27/2024	12	60	10.9		141		10		63		85		4			13		309		160.8	
6/27/2024	13	60	10.8		141		8		51		84		1			13		309		174.4	
6/27/2024	14	60	11.0		141		8		54		86		4			13		309		167.7	
6/27/2024	15	60	10.3		138		2		45		95		3	3		13	13	309	309	162.4	166.3
6/27/2024	16	60	10.5		140		1		37		97		0			13		309		168.0	
6/27/2024	17	60	10.7		139		5		43		89		0			14		309		165.1	
6/27/2024	18	60	10.8		143		7		43		85		0			13		310		166.3	
6/27/2024	19	60	10.6		140		6		41		86		0	0		13		309	309	168.9	167.1
6/27/2024	20	60	10.6		141		12		48		74		0			13		310		167.8	
6/27/2024	21	60	10.9		141		18		62		71		0			13		310		167.7	
6/27/2024	22	60	10.7		142		27		95		71		0			13		309		167.1	
6/27/2024	23	60	10.6		139		18		64		73		0	0		13	13	308	309	168.5	167.8

Average:
Geometric Mean Average:

Limit:

141	7	OR	88	see above	see above	see above
≤ 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

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 6/27/24

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.
6/27/2024	0	58	9.7		139		5		43		88		3			19		309		166.2	
6/27/2024	1	60	9.7		140		4		43		91		4			20		310		166.3	
6/27/2024	2	60	9.7		139		4		42		91		3			16		310		166.8	
6/27/2024	3	60	9.7		139		2		40		94		4	3		16		310	310	167.7	166.8
6/27/2024	4	60	9.7		144		8		54		86		4			17		310		166.6	
6/27/2024	5	60	9.5		140		7		58		87		5			17		310		168.4	
6/27/2024	6	60	9.5		140		2		46		96		5			16		310		166.8	
6/27/2024	7	60	9.6		138		1		34		98		4	4		16	17	310	310	167.7	167.4
6/27/2024	8	60	9.7		136		1		37		97		5			16		309		166.8	
6/27/2024	9	60	10.1		137		5		57		91		3			14		310		167.8	
6/27/2024	10	60	10.0		140		5		33		84		5			13		310		166.5	
6/27/2024	11	60	9.8		142		15		51		71		5	4		13		310	310	166.5	166.9
6/27/2024	12	60	9.7		140		12		46		75		6			13		310		167.8	
6/27/2024	13	60	9.7		139		5		31		85		6			13		310		168.8	
6/27/2024	14	60	9.6		139		2		28		93		5			13		310		164.8	
6/27/2024	15	60	9.5		141		0		23		99		5	5		12	14	309	310	165.6	166.8
6/27/2024	16	60	9.4		138		5		31		85		5			13		311		166.7	
6/27/2024	17	60	9.5		139		4		27		85		5			12		311		168.9	
6/27/2024	18	60	9.8		139		6		33		82		5			13		309		169.1	
6/27/2024	19	60	9.6		140		7		29		75		4	5		12		311	311	168.0	168.2
6/27/2024	20	60	9.8		140		12		37		67		5			14		310		167.5	
6/27/2024	21	60	10.1		140		23		46		49		5			15		310		167.7	
6/27/2024	22	60	10.2		139		27		80		66		5			15		309		167.5	
6/27/2024	23	60	9.9		140		20		51		61		4	5		15	14	310	310	168.3	167.7

Average:
Geometric Mean Average:

Limit:

140	5	OR	88
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 80% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

see above	see above	see above
≥ 12 lb/hr 8-HR. Block Average	≤ 345 °F 4-HR Block Average	≤ 173 klb/hr 4-HR Block Average

Status Flags

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 27-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	1	I	I	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
3	1			1	1	1	1	1	1	1	1
4	1			1	1	1	1	1	1	1	1
5	1			1	1	1	1	1	1	1	1
6	2	IC	5	IC	1	1	1	1	1	1	1
7	1			1	1	1	1	1	1	1	1
8	1			1	1	1	1	1	1	1	1
9	1			1	1	1	1	1	1	1	1
10	1			1	1	1	1	1	1	1	1
11	1			1	1	1	1	1	1	1	1
12	1			1	1	1	1	1	1	1	1
13	1			1	1	1	1	1	1	1	1
14	1			1	1	1	1	1	1	1	1
15	1			1	1	1	1	1	1	1	1
16	1			1	1	1	1	1	1	1	1
17	1			1	1	1	1	1	1	1	1
18	1			1	1	1	1	1	1	1	1
19	1			1	1	1	1	1	1	1	1
20	1			1	1	1	1	1	1	1	1
21	1			1	1	1	1	1	1	1	1
22	1			1	1	1	1	1	1	1	1
23	1			1	1	1	1	1	1	1	1

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 27-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	2	I	2	I	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
3	2		2		2	2	2	2	2	2	2
4	2		2		2	2	2	2	2	2	2
5	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
8	2		2		2	2	2	2	2	2	2
9	2		2		2	2	2	2	2	2	2
10	2		2		2	2	2	2	2	2	2
11	2		2		2	2	2	2	2	2	2
12	2		2		2	2	2	2	2	2	2
13	2		2		2	2	2	2	2	2	2
14	2		2		2	2	2	2	2	2	2
15	2		2		2	2	2	2	2	2	2
16	2		2		2	2	2	2	2	2	2
17	2		2		2	2	2	2	2	2	2
18	2		2		2	2	2	2	2	2	2
19	2		2		2	2	2	2	2	2	2
20	2		2		2	2	2	2	2	2	2
21	2		2		2	2	2	2	2	2	2
22	2		2		2	2	2	2	2	2	2
23	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