



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



Date 6/1/23

Wheel Plant Wheelabrator North Andover
Unit 1 Unit Unit 1
Outlet 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.
6/1/2023	0	60	9.8		133		11		83		86		3			12		309		162.9	
6/1/2023	1	60	9.8		140		13		85		85		3			13		310		166.0	
6/1/2023	2	60	9.6		136		11		86		88		3			12		309		166.4	
6/1/2023	3	60	9.8		130		5		73		93		3	3		13		310	310	161.7	164.3
6/1/2023	4	60	9.5		129		6		76		92		4			12		309		165.3	
6/1/2023	5	60	9.7		131		10		77		86		3			13		309		164.1	
6/1/2023	6	60	9.7		135		6		75		92		63			13		309		160.2	
6/1/2023	7	60	9.3		138		1		65		98		4	18		13	13	310	309	167.6	164.3
6/1/2023	8	60	9.3		134		1		62		98		4			12		309		166.3	
6/1/2023	9	60	9.4		136		1		58	IBCM	98	IBCM	6			12		309		166.4	
6/1/2023	10	60	9.7		130		6		80		92		5			12		309		166.4	
6/1/2023	11	60	9.5		138		2		52		97		5	5		13		309	309	166.4	166.4
6/1/2023	12	60	9.6		138		0		54		100		4			12		310		166.4	
6/1/2023	13	60	9.8		140		1		49		99		4			13		309		166.4	
6/1/2023	14	60	9.6		133		1		68		98		5			12		309		166.9	
6/1/2023	15	60	9.8		140		5		77		94		4	4		13	12	310	310	166.4	166.5
6/1/2023	16	60	9.7		135		1		61		99		4			12		310		165.0	
6/1/2023	17	60	9.9		137		2		63		97		4			13		309		166.1	
6/1/2023	18	60	9.7		130		1		72		99		5			12		309		166.6	
6/1/2023	19	60	9.8		131		3		77		96		3	4		12		309	309	167.3	166.2
6/1/2023	20	60	9.8		140		9		90		90		3			13		310		167.1	
6/1/2023	21	60	9.9		139		11		101		89		3			13		309		164.8	
6/1/2023	22	60	9.6		138		16		107		85		3			12		309		167.9	
6/1/2023	23	60	9.8		139		10		84		88		4	3		13	12	310	309	165.9	166.4

Average:
Geometric Mean Average:

Limit:

135	3
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

96
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

see above
≥ 12 8-HR. Block Average

lb/hr

see above
≤ 345 °F 4-HR Block Average

°F

see above
≤ 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 COMPLIANCE SUMMARY REPORT



Date 6/1/23

Wheel Plant Wheelabrator North Andover
Unit 2 Unit Unit 1
Outlet 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.
6/1/2023	0	60	10.8		139		21		39		47		1			14		310		166.1	
6/1/2023	1	60	10.8		140		17		35		50		1			14		310		167.0	
6/1/2023	2	60	11.0		140		16		35		53		2			14		310		164.0	
6/1/2023	3	60	10.9		139		10		23		55		2	1		14		310	310	166.1	165.8
6/1/2023	4	60	10.5		144		6		17		63		3			13		310		167.4	
6/1/2023	5	60	10.8		138		9		23		60		2			14		310		166.4	
6/1/2023	6	60	10.3		139		4		17		74		2			14		310		165.3	
6/1/2023	7	60	10.5		138		4		19		80		2	2		14	14	310	310	165.6	166.2
6/1/2023	8	60	10.3		138		5		21		76		2			14		310		165.5	
6/1/2023	9	60	10.1		141		4		32	IBCM	87	IBCM	2			14		310		167.0	
6/1/2023	10	60	10.4		137		8		37		78		2			13		310		168.6	
6/1/2023	11	60	10.3		142		2		30		95		3	2		13		310	310	166.0	166.8
6/1/2023	12	60	10.3		139		4		40		90		4			13		310		166.7	
6/1/2023	13	60	10.2		144		2		33		93		2			13		310		167.2	
6/1/2023	14	60	10.4		139		4		40		91		2			14		310		166.0	
6/1/2023	15	60	10.4		138		16		89		82		2	3		12	13	310	310	165.3	166.3
6/1/2023	16	60	10.1		142		6		46		87		2			13		310		166.4	
6/1/2023	17	60	10.2		139		4		36		88		2			13		310		167.1	
6/1/2023	18	60	10.4		137		6		40		86		3			14		310		166.5	
6/1/2023	19	60	10.3		140		5		37		87		3	2		13		310	310	166.6	166.7
6/1/2023	20	60	10.1		138		5		40		88		3			13		310		167.3	
6/1/2023	21	60	10.4		144		14		65		79		3			14		310		164.6	
6/1/2023	22	60	10.3		134		19		79		75		3			13		310		167.1	
6/1/2023	23	60	10.5		140		19		76		75		2	2		13	13	310	310	166.9	166.5

Average:
Geometric Mean Average:

Limit:

140	7
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

80
≥ 75% 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 01-Jun-2023

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	3	IC	5	IC	0	0	0	0	0	0	1
7	1		1		1	0	0	0	0	0	0
8	0		0		0	0	0	1	0	0	0
9	0		0		0	0	0	0	0	0	0
10	0		0		0	0	0	0	0	0	0
11	0		0		0	0	0	0	0	0	0
12	0		0		0	0	0	0	0	0	0
13	0		0		0	1	0	0	0	0	0
14	0		0		0	0	0	0	0	0	0
15	0		0		0	0	0	0	0	0	0
16	0		0		0	0	0	0	0	0	0
17	0		0		0	0	0	0	0	0	0
18	0		0		0	0	0	0	0	0	0
19	0		0		0	0	0	0	0	0	0
20	0		0		0	0	0	0	0	0	0
21	0		0		0	0	0	0	0	0	0
22	0		0		0	0	0	0	0	0	0
23	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 01-Jun-2023

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	1	1	1	1	1	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	1	1
3	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1
6	3	IBC	6	IBC	1	1	1	1	1	1	2
7	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1
11	2	2	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	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

Status Flags

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