



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



Date 2/12/24

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.
2/12/2024	0	60	10.4		140		23		61		63		0			13		309		166.9	
2/12/2024	1	60	10.5		141		22		51		56		0			13		309		167.4	
2/12/2024	2	60	10.3		142		25		62		60		0			13		310		168.8	
2/12/2024	3	60	10.5		139		21		51		58		0	0		12		309	309	166.1	167.3
2/12/2024	4	60	10.6		145		20		43		53		0			13		310		164.9	
2/12/2024	5	60	10.5		140		18		39		54		0			13		310		167.3	
2/12/2024	6	60	10.7		142		14		33		57		0			13		309		166.0	
2/12/2024	7	60	10.4		142		15		26		43		0	0		13	13	310	310	167.2	166.3
2/12/2024	8	60	10.3		140		11		36		68		1			13		309		169.9	
2/12/2024	9	60	10.7		140		6		31		81		1			13		309		168.7	
2/12/2024	10	60	10.6		139		6		30	IBM	79	IBM	1			13		309		167.9	
2/12/2024	11	60	10.8		143		2		21	IBM	90	IBM	0	1		13		310	309	168.0	168.7
2/12/2024	12	60	10.6		140		2		500	IBCM	100	IBCM	0			13		309		162.9	
2/12/2024	13	60	10.6		141		8		91	IBCM	91	IBCM	1			13		309		165.3	
2/12/2024	14	60	10.5		142		1		28		96		0			13		309		163.7	
2/12/2024	15	60	10.7		141		14		36		61		0	0		13	13	309	309	163.2	163.8
2/12/2024	16	60	10.5		142		21		72		71		0			13		310		167.9	
2/12/2024	17	60	10.7		139		19		69		73		0			13		309		165.0	
2/12/2024	18	60	10.6		142		18		61		70		0			13		311		166.7	
2/12/2024	19	60	10.6		139		16		49		67		0	0		13		309	310	166.3	166.5
2/12/2024	20	60	10.6		142		14		39		63		0			13		309		164.6	
2/12/2024	21	60	10.5		141		19		40		53		0			13		309		166.4	
2/12/2024	22	60	10.4		141		17		39		57		0			13		309		167.0	
2/12/2024	23	60	10.5		140		18		46		61		0	0		13	13	309	309	166.4	166.1

Average: Geometric Mean Average:	141	12	OR	67	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



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Date 2/12/24

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.
2/12/2024	0	60	10.3		138		22		69		69		5			14		310		167.5	
2/12/2024	1	60	10.2		141		20		57		65		6			13		310		167.7	
2/12/2024	2	60	10.1		139		23		71		68		5			12		310		167.9	
2/12/2024	3	60	10.1		140		16		54		70		5	5		15		310	310	167.8	167.7
2/12/2024	4	60	10.1		145		14		55		75		7			16		310		167.4	
2/12/2024	5	60	10.1		139		12		46		74		6			15		310		167.4	
2/12/2024	6	60	10.1		139		14		49		72		6			15		310		167.0	
2/12/2024	7	60	10.3		137		5		41		87		4	6		15	14	310	310	169.0	167.7
2/12/2024	8	60	10.5		142		1		53		98		5			15		310		166.5	
2/12/2024	9	60	10.4		139		5		81		94		5			16		310		165.9	
2/12/2024	10	60	10.2		140		5		90	IBM	94	IBM	6			13		310		168.3	
2/12/2024	11	60	10.2		141		0		60	IBM	100	IBM	5	5		12		310	310	167.6	167.1
2/12/2024	12	60	10.3		139		1		71	IBM	98	IBM	4			13		310		167.5	
2/12/2024	13	60	10.1		141		0		39	IBCM	100	IBCM	6			13		310		167.2	
2/12/2024	14	60	10.4		138		0		35		100		5			13		310		167.4	
2/12/2024	15	60	10.2		141		0		55		100		5	5		14	13	310	310	165.4	166.9
2/12/2024	16	60	9.9		140		3		78		97		5			15		310		167.7	
2/12/2024	17	60	9.9		139		0		56		100		5			14		310		167.4	
2/12/2024	18	60	9.9		140		0		68		99		5			13		310		166.9	
2/12/2024	19	60	9.8		140		1		65		99		5	5		14		310	310	167.6	167.4
2/12/2024	20	60	9.9		140		5		74		93		5			13		310		166.4	
2/12/2024	21	60	9.8		139		4		66		95		5			13		310		166.4	
2/12/2024	22	60	9.9		140		3		60		96		5			14		310		167.2	
2/12/2024	23	60	10.0		139		13		92		86		4	5		15	14	310	310	167.2	166.8

Average:
Geometric Mean Average:

Limit:

140	2	95
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean	≥ 80% Removal Efficiency

OR

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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 12-Feb-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	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 12-Feb-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	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	1	IC	5	IC	1	1	1	1	1	1	1
7	1	1	1	IB	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	1	1	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
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