



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



Date 3/21/23

Wheel Plant Wheelabrator North Andover
Unit 1 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.	4 Hr Block
3/21/2023	0	0	20.8	IF	17	IF	8	IF	-875	IBF	0	IBF	0	IF		1		78		0.0		
3/21/2023	1	0	20.9	IF	17	IF	8	IF	-866	IBF	0	IBF	0	IF		2		76		0.0		
3/21/2023	2	0	20.9	IF	17	IF	8	IF	-876	IBF	0	IBF	0	IF		3		74		0.0		
3/21/2023	3	5	20.1	ICF	17	ICF	8	ICF	-791	IBF	0	IBCF	2	ICF	0	ICF		72	75	0.0	0.0	
3/21/2023	4	12	17.3	IBCF	119	IBCF	66	IBCF	-838	IBF	0	IBCF	546	IBCF		3		72		0.0		
3/21/2023	5	0	20.9	IF	18	IF	9	IF	184	IBCF	95	IBCF	0	IF		3		70		0.0		
3/21/2023	6	0	20.9	IF	19	IF	8	IF	-548	IBF	0	IBF	0	IF		4		69		0.0		
3/21/2023	7	0	20.9	IF	19	IF	8	IF	-672	IBF	0	IBF	0	IF	137	IBCF	2	3	69	70	0.0	0.0
3/21/2023	8	0	20.9	IF	19	IF	8	IF	-636	IBF	0	IBF	0	IF		1		69		0.0		
3/21/2023	9	0	20.9	IF	19	IF	8	IF	-673	IBF	0	IBF	0	IF		0		70		0.0		
3/21/2023	10	0	20.9	IF	19	IF	8	IF	-599	IBF	0	IBF	0	IF		0		71		0.0		
3/21/2023	11	0	20.9	IF	19	IF	8	IF	-719	IBF	0	IBF	0	IF	0	IF		72	70	0.0	0.0	
3/21/2023	12	0	20.9	IF	19	IF	8	IF	-760	IBF	0	IBF	0	IF		1		73		0.0		
3/21/2023	13	0	20.9	IF	20	IF	8	IF	-761	IBF	0	IBF	0	IF		1		73		0.0		
3/21/2023	14	0	20.9	IF	20	IF	8	IF	-669	IBF	0	IBF	0	IF		0		74		0.0		
3/21/2023	15	0	20.9	IF	20	IF	8	IF	-678	IBF	0	IBF	0	IF	0	IF	0	1	74	74	0.1	0.0
3/21/2023	16	0	20.9	IF	19	IF	8	IF	-636	IBF	0	IBF	0	IF		0		74		0.1		
3/21/2023	17	0	20.9	IF	18	IF	8	IF	-650	IBF	0	IBF	0	IF		0		74		0.1		
3/21/2023	18	0	20.9	IF	19	IF	8	IF	-724	IBF	0	IBF	0	IF		1		74		0.0		
3/21/2023	19	0	20.9	IF	19	IF	8	IF	-739	IBF	0	IBF	0	IF	0	IF	0	IF	74	74	0.0	0.1
3/21/2023	20	0	20.9	IF	20	IF	8	IF	-715	IBF	0	IBF	0	IF		0		73		0.0		
3/21/2023	21	0	20.9	IF	20	IF	9	IF	-759	IBF	0	IBF	0	IF		1		73		0.0		
3/21/2023	22	0	20.9	IF	20	IF	9	IF	-748	IBF	0	IBF	0	IF		0		72		0.0		
3/21/2023	23	0	20.9	IF	21	IF	8	IF	-732	IBF	0	IBF	0	IF	0	IF	1	1	71	72	0.0	0.0

Average:
Geometric Mean Average:

Limit:

23 IBCF
9 IBCF
≤ 205 24-HR Block Avg.
≤ 29 24-HR Geometric Mean

OR

0 IBCF
≥ 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

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 3/21/23

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.
3/21/2023	0	60	11.0		187		2		31		92		3			14		310		167.8	
3/21/2023	1	60	11.0		192		6		40		84		2			14		310		166.9	
3/21/2023	2	60	11.2		178		4		33		89		3			14		310		164.5	
3/21/2023	3	60	11.3		161		3		33		92		4	3		14		310	310	167.2	166.6
3/21/2023	4	60	11.3		181		5		38		86		4			13		310		167.6	
3/21/2023	5	60	11.4		167		13		56		76		2			14		310		168.4	
3/21/2023	6	60	11.4		170		7		38		82		3			13		310		165.9	
3/21/2023	7	60	11.7		151		13		48		74		4	3		14	14	310	310	163.6	166.4
3/21/2023	8	60	11.9		174		13		51		74		4			13		310		163.5	
3/21/2023	9	60	11.9		174		11		51		78		3			13		311		167.2	
3/21/2023	10	60	12.0		174		12		50		75		3			13		309		166.9	
3/21/2023	11	60	11.6		186		5		47	IBM	88	IBM	3	3		13		310	310	166.9	166.1
3/21/2023	12	60	11.4		191		1		44	IBM	97	IBM	3			14		310		166.3	
3/21/2023	13	60	11.3		207		4		54		93		3			13		310		165.1	
3/21/2023	14	60	11.5		200		3		53		94		3			13		310		165.8	
3/21/2023	15	60	11.7		184		10		72		86		4	3		14	13	310	310	164.2	165.4
3/21/2023	16	60	11.6		200		22		90		75		3			13		310		166.9	
3/21/2023	17	60	11.5		206		18		86		79		3			14		310		166.7	
3/21/2023	18	60	11.5		205		12		73		84		3			13		310		165.9	
3/21/2023	19	60	11.5		212		9		74		88		2	3		13		310	310	165.6	166.3
3/21/2023	20	60	11.4		217		13		82		84		2			13		310		166.8	
3/21/2023	21	60	11.6		196		14		83		83		2			13		310		166.3	
3/21/2023	22	60	11.6		181		7		76		91		2			14		310		166.6	
3/21/2023	23	60	11.6		204		6		76		92		2	2		13	13	310	310	166.5	166.5

Average:
Geometric Mean Average:

Limit:

187	7
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

86
≥ 75% Removal Efficiency

see above
≤ 69 ppmc 4-HR Block Average

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 21-Mar-2023

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Source Outlet

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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	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	2	IBC	4	IBC	0	0	0	0	0	0	1
7	0	0	0	0	0	1	0	0	1	1	0
8	1	1	1	1	1	1	1	1	1	1	1
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	1	0	0	0	0	0	0	0	0	0
12	0	1	1	0	0	0	0	0	1	0	0
13	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	0	1	1
15	1	1	1	1	1	0	1	1	1	0	1
16	0	0	1	1	0	1	0	0	0	1	0
17	0	0	0	0	0	1	0	0	0	1	0
18	0	0	0	0	0	0	0	0	0	0	0
19	0	0	1	1	1	1	0	1	1	1	0
20	1	1	1	1	1	1	1	1	0	1	1
21	1	0	1	0	0	1	0	0	1	1	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

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