



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



Date 5/3/23

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
5/3/2023	0	0	21.0	IF	32	IF	8	IF	11145	IBF	100	IBF	0	IF			0		81		0.0	
5/3/2023	1	0	21.0	IF	31	IF	9	IF	21347	IBF	100	IBF	0	IF			0		79		0.0	
5/3/2023	2	0	21.0	IF	30	IF	9	IF	78410	IBF	100	IBF	0	IF			0		78		0.0	
5/3/2023	3	5	20.2	ICF	28	ICF	10	ICF	-34285	IBF	0	IBCF	2	ICF	0	ICF	0		75	78	0.0	0.0
5/3/2023	4	12	17.4	IBCF	166	IBCF	70	IBCF	10243	IBF	99	IBCF	565	IBCF			0		75		0.0	
5/3/2023	5	0	21.0	IF	31	IF	9	IF	218	IBCF	96	IBCF	0	IF			0		74		0.0	
5/3/2023	6	0	21.0	IF	31	IF	9	IF	-7050	IBF	0	IBF	0	IF			0		73		0.0	
5/3/2023	7	0	21.0	IF	32	IF	9	IF	-25542	IBF	0	IBF	0	IF	141	IBCF	0	0	74	74	0.0	0.0
5/3/2023	8	0	21.0	IF	32	IF	10	IF	370381	IBF	100	IBF	0	IF			0		74		0.0	
5/3/2023	9	0	21.0	IF	32	IF	10	IF	25830	IBF	100	IBF	0	IF			0		74		0.0	
5/3/2023	10	0	21.0	IF	32	IF	9	IF	21347	IBF	100	IBF	0	IF			0		74		0.0	
5/3/2023	11	0	21.0	IF	30	IF	10	IF	-19534	IBF	0	IBF	0	IF	0	IF	0		74	74	0.0	0.0
5/3/2023	12	0	21.0	IF	32	IF	9	IF	71039	IBF	100	IBF	0	IF			0		74		0.0	
5/3/2023	13	0	21.0	IF	33	IF	8	IF	-12872	IBF	0	IBF	0	IF			0		74		0.0	
5/3/2023	14	0	21.0	IF	34	IF	9	IF	-8662	IBF	0	IBF	0	IF			0		73		0.0	
5/3/2023	15	0	21.0	IF	33	IF	9	IF	-3953	IBF	0	IBF	0	IF	0	IF	0	0	72	73	0.0	0.0
5/3/2023	16	0	21.0	IF	31	IF	9	IF	-3205	IBF	0	IBF	0	IF			0		70		0.0	
5/3/2023	17	0	21.0	IF	30	IF	8	IF	-3023	IBF	0	IBF	0	IF			0		69		0.0	
5/3/2023	18	0	21.0	IF	30	IF	8	IF	-3095	IBF	0	IBF	0	IF			0		68		0.0	
5/3/2023	19	0	21.0	IF	30	IF	8	IF	-3007	IBF	0	IBF	0	IF	0	IF	0	0	67	69	0.0	0.0
5/3/2023	20	0	21.0	IF	30	IF	9	IF	-2917	IBF	0	IBF	0	IF			0		66		0.0	
5/3/2023	21	0	21.0	IF	29	IF	9	IF	-3238	IBF	0	IBF	0	IF			0		65		0.0	
5/3/2023	22	0	21.0	IF	29	IF	8	IF	-2539	IBF	0	IBF	0	IF			0		65		0.0	
5/3/2023	23	0	21.0	IF	28	IF	8	IF	-2737	IBF	0	IBF	0	IF	0	IF	0	0	64	65	0.0	0.0

Average:
Geometric Mean Average:

Limit:

37 IBCF	10 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 5/3/23

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.
5/3/2023	0	60	10.6		139		2		24		93		3			13		310		166.0	
5/3/2023	1	60	10.3		140		0		21		99		2			13		310		167.3	
5/3/2023	2	60	10.6		140		1		25		96		2			14		310		166.5	
5/3/2023	3	60	10.7		137		0		25		99		2	2		14		310	310	165.6	166.3
5/3/2023	4	60	10.7		146		1		27		96		2			13		310		168.0	
5/3/2023	5	60	10.8		140		1		26		97		3			13		310		165.9	
5/3/2023	6	60	11.0		136		2		26		94		3			13		310		166.9	
5/3/2023	7	60	11.3		140		1		22		95		2	2		13	13	310	310	166.3	166.8
5/3/2023	8	60	10.9		142		11		49		77		4			13		310		167.9	
5/3/2023	9	60	11.1		156		19		61		69		2			13		310		167.2	
5/3/2023	10	60	10.9		132		18		51		65		2			13		310		169.2	
5/3/2023	11	60	11.1		138		2		26		93		1	2		14		310	310	167.9	168.0
5/3/2023	12	60	11.2		143		8		32		74		1			13		309		166.5	
5/3/2023	13	60	10.8		137		7		36		80		4			13		311		167.0	
5/3/2023	14	60	10.5		140		5		29		84		5			14		310		166.3	
5/3/2023	15	60	10.5		140		5		29		82		4	3		14	13	310	310	166.6	166.6
5/3/2023	16	60	10.9		139		19		47		61		3			13		310		166.0	
5/3/2023	17	60	10.8		138		13		37		65		3			13		310		164.2	
5/3/2023	18	60	10.7		141		9		35		75		8			13		310		166.5	
5/3/2023	19	60	10.6		139		5		29		84		4	5		13		310	310	165.5	165.5
5/3/2023	20	60	10.7		137		4		31		87		4			14		310		166.7	
5/3/2023	21	60	10.8		142		22		69		68		3			14		310		166.8	
5/3/2023	22	60	10.9		137		15		55		73		2			13		310		164.6	
5/3/2023	23	60	11.0		141		10		42		77		2	3		13	13	310	310	167.3	166.3

Average:
Geometric Mean Average:

Limit:

140	4
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

88
≥ 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 03-May-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	0	IF	1	IF	0	IF	0	IF	0	IF	0
1	1	IF	1	IF	1	IF	1	IF	1	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
2	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	1	IF	0	IF	0
3	1	IF	1	IF	0	IF	1	IF	0	IF	0	IF	0	IF	0	IF	1	IF	0	IF	0
4	0		1		0	IF	0	IF	0	IF	0	IF	0	IF	1	IF	0	IF	0	IF	0
5	0	IF	0	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	0
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	0	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	0
15	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1
16	0	IF	1	IF	0	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	0
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

Status Flags

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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	1	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	IBC	5	IBC	0	1	0	0	0	0	1
7	1		0		1	1	1	1	1	0	1
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	1	0	1	1	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

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