



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



Date 8/2/22

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
8/2/2022	0	0	21.0	IF	64	IF	6	IF	-1185	IBF	0	IBF	0	IF		0		118		0.0		
8/2/2022	1	0	21.0	IF	63	IF	6	IF	-1168	IBF	0	IBF	0	IF		0		116		0.0		
8/2/2022	2	0	21.0	IF	63	IF	6	IF	-1134	IBF	0	IBF	0	IF		0		113		0.0		
8/2/2022	3	5	20.1	ICF	59	ICF	6	ICF	-1122	IBF	0	IBCF	1	ICF	0	ICF		110	114	0.0	0.0	
8/2/2022	4	12	17.4	IBCF	268	IBCF	63	IBCF	-1189	IBF	0	IBCF	548	IBCF		0		109		0.0		
8/2/2022	5	0	21.0	IF	66	IF	7	IF	191	IBCF	96	IBCF	0	IF		0		108		0.0		
8/2/2022	6	0	21.0	IF	68	IF	6	IF	-794	IBMF	0	IBMF	0	IF		0		109		0.0		
8/2/2022	7	0	21.0	IF	69	IF	6	IF	-522	IBMF	0	IBMF	0	IF	137	IBCF	0	0	110	109	0.0	0.0
8/2/2022	8	0	20.9	IF	70	IF	6	IF	-523	IBF	0	IBF	0	IF			0		110		0.0	
8/2/2022	9	0	20.9	IF	71	IF	6	IF	-553	IBF	0	IBF	0	IF			0		111		0.0	
8/2/2022	10	0	20.9	IF	71	IF	6	IF	-592	IBF	0	IBF	0	IF			0		112		0.0	
8/2/2022	11	0	20.9	IF	70	IF	6	IF	-627	IBF	0	IBF	0	IF	0	IF		0	112	111	0.0	0.0
8/2/2022	12	0	20.9	IF	69	IF	6	IF	-737	IBF	0	IBF	0	IF			0		116		0.0	
8/2/2022	13	0	20.9	IF	67	IF	6	IF	-715	IBF	0	IBF	0	IF			0		113		0.0	
8/2/2022	14	0	20.9	IF	67	IF	7	IF	-833	IBF	0	IBF	0	IF			0		109		0.0	
8/2/2022	15	0	20.9	IF	68	IF	6	IF	-804	IBF	0	IBF	0	IF	0	IF	0	0	106	111	0.0	0.0
8/2/2022	16	0	20.9	IF	70	IF	6	IF	-785	IBF	0	IBF	0	IF			0		105		0.0	
8/2/2022	17	0	20.9	IF	69	IF	6	IF	-792	IBF	0	IBF	0	IF			0		103		0.0	
8/2/2022	18	0	20.9	IF	68	IF	6	IF	-761	IBF	0	IBF	0	IF			0		102		0.0	
8/2/2022	19	0	20.9	IF	68	IF	6	IF	-789	IBF	0	IBF	0	IF	0	IF	0	0	102	103	0.0	0.0
8/2/2022	20	0	20.9	IF	68	IF	6	IF	-770	IBF	0	IBF	0	IF			0		101		0.0	
8/2/2022	21	0	20.9	IF	68	IF	6	IF	-757	IBF	0	IBF	0	IF			0		100		0.0	
8/2/2022	22	0	20.9	IF	66	IF	7	IF	-778	IBF	0	IBF	0	IF			0		99		0.1	
8/2/2022	23	0	20.9	IF	64	IF	7	IF	-858	IBF	0	IBF	0	IF	0	IF	0	0	98	99	0.0	0.0

Average:
Geometric Mean Average:

Limit:

76 IBCF	7 IBCF	0 IBCMF
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean	≥ 75% 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

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 8/2/22

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.
8/2/2022	0	60	10.9		177		27		98		72		3			13		310		165.0	
8/2/2022	1	60	10.8		176		27		107		75		3			15		310		168.4	
8/2/2022	2	60	10.8		178		20		89		78		2			15		310		166.1	
8/2/2022	3	60	10.9		178		17		79		79		3	3		15		309	310	165.0	166.1
8/2/2022	4	60	11.0		184		13		74		83		5			15		310		163.8	
8/2/2022	5	60	10.8		182		1		18		93		4			15		310		163.6	
8/2/2022	6	60	10.8		177		1		13		93		3			15		310		164.5	
8/2/2022	7	60	10.3		182		2		36		95		20	8		15	15	310	310	168.2	165.0
8/2/2022	8	60	10.5		190		1		26		97		3			14		310		164.8	
8/2/2022	9	60	10.8		179		1		23		95		4			14		310		165.9	
8/2/2022	10	60	10.5		168		1		9		93		9			14		310		162.4	
8/2/2022	11	60	10.2		174		0		5		91		3	5		14		310	310	162.1	163.8
8/2/2022	12	60	9.8		184		1		11		92		4			14		310		169.9	
8/2/2022	13	60	10.8		190		2		13		89		5			14		309		156.9	
8/2/2022	14	60	10.2		179		1		10		94		4			14		310		163.4	
8/2/2022	15	60	10.5		190		1		14		93		3	4		14	14	310	310	163.2	163.4
8/2/2022	16	60	10.5		177		1		11		95		3			14		310		164.6	
8/2/2022	17	60	10.4		175		1		17		95		3			14		310		165.2	
8/2/2022	18	60	10.3		178		1		17		94		5			13		310		166.7	
8/2/2022	19	60	10.5		185		2		13		88		3	3		13		310	310	166.2	165.7
8/2/2022	20	60	10.3		175		1		13		91		2			14		310		165.5	
8/2/2022	21	60	10.3		170		3		22		87		91			13		309		168.4	
8/2/2022	22	60	10.6		172		2		18		88		2			13		310		164.5	
8/2/2022	23	60	10.8		183		6		27		79		4	25		13	14	310	310	165.3	165.9

Average: Geometric Mean Average:	179	2	OR	91	see above	see above	see above	see above
Limit:	≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 75% 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 02-Aug-2022

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

Status Flags

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Date 02-Aug-2022

Plant Wheelabrator North Andover
Unit Unit 2
Source Outlet

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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	1	1	0	1	1	1	1	1	1	1	0
1	1	0	0	1	0	0	1	1	1	0	0
2	1	0	1	1	1	1	1	1	1	1	0
3	1	1	1	0	0	0	0	1	1	0	0
4	1	0	0	0	1	1	1	1	1	1	0
5	1	1	1	1	1	1	1	1	1	1	1
6	2	IBC	5	IBC	1	1	0	1	1	0	1
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	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	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	1	1	0	0
17	1	0	0	0	0	0	0	0	1	0	0
18	0	0	1	1	1	1	1	0	0	1	0
19	0	0	1	1	1	1	0	1	1	1	0
20	0	0	0	0	1	1	1	1	1	1	0
21	1	0	0	0	0	1	1	1	1	1	0
22	1	1	0	0	0	1	0	1	1	1	0
23	1	1	1	1	1	1	1	1	1	1	1

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