



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



Date 1/26/22

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.	4 Hr Block
1/26/2022	0	0	20.9	IF	9	IF	7	IF	0	IBF	0	IBF	0	IF		0		39		0.0		
1/26/2022	1	0	20.9	IF	8	IF	7	IF	0	IBF	0	IBF	0	IF		0		38		0.0		
1/26/2022	2	0	20.9	IF	8	IF	7	IF	0	IBF	0	IBF	0	IF		0		37		0.0		
1/26/2022	3	5	20.1	ICF	7	ICF	6	ICF	0	IBF	0	IBCF	1	ICF	0	ICF		35	37	0.0	0.0	
1/26/2022	4	13	17.2	IBCF	84	IBCF	57	IBCF	0	IBF	0	IBCF	545	IBCF		0		35		0.0		
1/26/2022	5	0	20.9	IF	8	IF	6	IF	140	IBCF	95	IBCF	0	IF		0		33		0.0		
1/26/2022	6	0	20.9	IF	8	IF	6	IF	0	IBF	0	IBF	0	IF		0		32		0.0		
1/26/2022	7	0	20.9	IF	7	IF	6	IF	0	IBF	0	IBF	0	IF	136	IBCF	1	0	32	33	0.0	0.0
1/26/2022	8	0	20.9	IF	7	IF	6	IF	0	IBF	0	IBF	0	IF		2		32		0.0		
1/26/2022	9	0	20.9	IF	8	IF	6	IF	0	IBF	0	IBF	0	IF		0		34		0.0		
1/26/2022	10	0	20.9	IF	8	IF	7	IF	0	IBF	0	IBF	0	IF		0		40		0.0		
1/26/2022	11	0	20.7	IF	14	IF	8	IF	0	IBF	0	IBF	1	IF	0	IF		46	38	0.0	0.0	
1/26/2022	12	60	17.5		333		24		0		0		19			12		88		0.0		
1/26/2022	13	50	17.2		406		21		0		0		45			16		118		4.4		
1/26/2022	14	60	17.1		424		21		0		0		27			17		145		18.0		
1/26/2022	15	60	13.2		244		9		2		0		13	26		15	15	184	134	42.6	16.2	
1/26/2022	16	60	11.0		201		7		6		0		13			16		219		74.1		
1/26/2022	17	60	10.8		200		7		6		0		6			16		231		79.1		
1/26/2022	18	60	11.0		186		40		103		61		38			14		288		120.6		
1/26/2022	19	60	10.6		199		21		113		82		26	21		14		300	259	164.0	109.4	
1/26/2022	20	60	10.9		199		8		78		90		25			14		299		165.1		
1/26/2022	21	60	11.1		184		13		88		85		25			14		300		162.8		
1/26/2022	22	60	10.9		180		14		76		82		18			14		299		168.0		
1/26/2022	23	60	10.8		199		26		99		74		20	22		14	14	299	299	167.0	165.7	

Average: Geometric Mean Average:	246	15	OR	0	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

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 1/26/22

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.
1/26/2022	0	60	9.4		180		0		23		100		2			13		310		165.9	
1/26/2022	1	60	9.4		177		0		32		99		2			14		310		165.9	
1/26/2022	2	60	9.5		182		0		30		99		2			13		310		166.1	
1/26/2022	3	60	9.3		182		0		28		99		2	2		14		310	310	165.6	165.9
1/26/2022	4	60	9.2		172		1		33		96		2			13		310		165.4	
1/26/2022	5	60	9.5		187		1		32		97		2			14		310		166.0	
1/26/2022	6	60	9.6		185		3		33		92		4			14		310		165.8	
1/26/2022	7	60	9.6		185		2		28		95		3	3		13	13	310	310	166.0	165.8
1/26/2022	8	60	9.6		168		0		18		98		4			13		310		166.2	
1/26/2022	9	60	9.8		188		3		33		92		3			14		310		166.0	
1/26/2022	10	60	10.0		183		12		66		81		3			14		310		165.4	
1/26/2022	11	60	10.0		191		3		36		92		2	3		13		310	310	165.8	165.9
1/26/2022	12	60	9.5		179		0		23		99		3			14		310		165.8	
1/26/2022	13	60	9.4		172		0		21		98		4			14		310		166.3	
1/26/2022	14	60	9.5		170		0		15		99		5			13		310		165.3	
1/26/2022	15	60	9.4		188		0		22		98		3	4		13	14	310	310	166.2	165.9
1/26/2022	16	60	9.7		185		4		40		90		3			13		310		165.5	
1/26/2022	17	60	10.0		179		19		81		76		3			14		310		166.1	
1/26/2022	18	60	9.9		182		24		99		76		5			14		310		165.9	
1/26/2022	19	60	9.8		188		15		68		79		3	3		14		310	310	165.8	165.8
1/26/2022	20	60	9.9		173		7		46		86		4			14		310		165.1	
1/26/2022	21	60	9.1		182		2		38		96		2			13		309		165.8	
1/26/2022	22	60	9.1		176		1		28		96		2			14		310		165.9	
1/26/2022	23	60	9.3		176		1		29		98		2	3		14	14	310	310	165.5	165.6

Average: Geometric Mean Average:	180	1	OR	96	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 26-Jan-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	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
1	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
2	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
3	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
4	2		2		2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
5	1	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
6	2	ICF	23	ICF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	4
7	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
8	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
9	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
10	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
11	2	IF	2	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1
12	1		1		1		1		1		1		1		1		1		1		1
13	1		1		1		1	IF	1	IF	1	IF	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		2		2		2		2		2		2		2		2		2		2
19	2		2		2		1		2		1		2		2		2		1		2
20	2		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

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 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 26-Jan-2022

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	2	2	2	2	2	2	2	2	2	2	2
1	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2
3	2	2	2	2	2	2	2	2	2	2	2
4	2	2	2	2	2	2	2	2	2	2	2
5	2	2	2	2	2	2	2	2	2	2	2
6	2	IBC	6	IBC	2	2	2	2	2	2	2
7	2	2	2	2	2	2	2	2	2	2	2
8	2	2	2	2	2	2	2	2	2	2	2
9	2	2	2	2	2	2	2	2	2	2	2
10	2	2	2	2	2	2	2	2	2	2	2
11	2	2	2	2	2	2	2	2	2	2	2
12	2	2	2	2	2	2	2	2	2	2	2
13	2	2	2	2	2	2	2	2	2	2	2
14	2	2	2	2	2	2	2	2	2	2	2
15	2	2	2	2	2	2	2	2	2	2	2
16	2	2	2	2	2	2	2	2	2	2	2
17	2	2	2	2	2	2	2	2	2	2	2
18	2	2	2	2	2	2	2	2	2	2	2
19	2	2	2	2	2	2	2	2	2	2	2
20	2	2	2	2	2	2	2	2	2	2	2
21	2	2	2	2	2	2	2	2	2	2	2
22	2	2	2	2	2	2	2	2	2	2	2
23	2	2	2	2	2	2	2	2	2	2	2

Status Flags

I - Invalid C - Calibration F - Offline T - Out of Control ^ - Startup
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