



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



Date 5/15/22

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.
5/15/2022	0	60	10.2		151		18		35		48		6			13		311		165.1	
5/15/2022	1	60	10.5		157		6		37		83		6			13		300		159.3	
5/15/2022	2	60	10.1		158		18		42		57		6			14		306		164.2	
5/15/2022	3	60	10.0		158		14		32		55		6	6		14		311	307	164.8	163.3
5/15/2022	4	60	10.0		161		14		37		64		6			14		311		165.7	
5/15/2022	5	60	10.1		160		18		39		54		6			14		312		165.0	
5/15/2022	6	60	10.1		165		14		33		58		6			14		313		164.9	
5/15/2022	7	60	10.3		160		13		32		61		6	6		13	13	308	311	165.4	165.3
5/15/2022	8	60	10.1		155		4		31		86		6			13		300		165.1	
5/15/2022	9	60	10.2		160		10		33		69		6			14		306		167.7	
5/15/2022	10	60	10.2		166		10		39		76		6			14		303		163.7	
5/15/2022	11	60	10.2		164		12		34		64		6	6		13		306	304	166.1	165.6
5/15/2022	12	60	10.4		161		14		33		57		7			14		309		164.7	
5/15/2022	13	60	10.4		161		15		37		60		6			14		309		166.4	
5/15/2022	14	60	10.2		165		13		28		55		6			14		313		166.9	
5/15/2022	15	60	10.4		160		11		26		58		6	6		13	14	309	310	162.9	165.2
5/15/2022	16	60	10.0		146		5		26		82		7			13		304		166.3	
5/15/2022	17	60	10.3		165		8		29		74		7			13		304		165.3	
5/15/2022	18	60	10.3		159		6		28		79		6			13		301		163.9	
5/15/2022	19	60	10.3		161		9		26		65		6	7		14		305	303	165.4	165.2
5/15/2022	20	60	10.1		160		6		26		78		6			14		309		164.9	
5/15/2022	21	60	10.1		157		8		26		70		6			13		315		166.3	
5/15/2022	22	60	10.1		159		5		24		78		7			13		312		163.7	
5/15/2022	23	60	10.0		157		14		34		58		6	6		13	13	315	313	167.4	165.6

Average:
Geometric Mean Average:

Limit:

159	10
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

68
≥ 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 5/15/22

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.
5/15/2022	0	60	9.7		185		3		44	IBM	93	IBM	2			15		310		165.4	
5/15/2022	1	60	9.8		182		5		44	IBM	89	IBM	1			14		310		165.7	
5/15/2022	2	60	9.7		187		5		44	IBM	89	IBM	2			14		310		165.5	
5/15/2022	3	60	9.7		183		9		48	IBM	82	IBCM	2	2		14		310	310	165.9	165.6
5/15/2022	4	60	9.7		185		6		54	IBM	89	IBCM	2			14		310		166.8	
5/15/2022	5	60	9.7		189		6		72	IBCM	91	IBCM	1			14		310		164.3	
5/15/2022	6	60	9.7		189		8		51	IBM	84	IBM	1			15		310		165.9	
5/15/2022	7	60	9.7		184		9		53	IBM	83	IBM	1	1		14	14	310	310	164.6	165.4
5/15/2022	8	60	9.7		187		10		59	IBM	82	IBM	1			14		310		165.9	
5/15/2022	9	60	9.7		188		7		44	IBM	84	IBM	2			15		310		166.0	
5/15/2022	10	60	9.7		184		4		44	IBM	90	IBM	2			14		310		166.3	
5/15/2022	11	60	9.6		178		2		36	IBM	93	IBM	1	1		14		310	310	168.0	166.5
5/15/2022	12	60	9.7		173		4		41	IBM	90	IBM	1			14		309		167.6	
5/15/2022	13	60	9.6		178		3		36	IBM	91	IBM	1			14		310		166.5	
5/15/2022	14	60	9.7		181		4		39	IBM	89	IBM	2			14		310		168.2	
5/15/2022	15	60	9.7		184		7		42	IBM	85	IBM	1	1		14	14	310	310	167.9	167.5
5/15/2022	16	60	9.8		189		7		40	IBM	83	IBM	1			14		310		166.1	
5/15/2022	17	60	9.9		184		6		36	IBM	83	IBM	1			14		310		166.2	
5/15/2022	18	60	10.0		179		5		31	IBM	84	IBM	1			15		310		165.0	
5/15/2022	19	60	10.0		182		2		26	IBM	92	IBM	2	1		15		310	310	165.8	165.8
5/15/2022	20	60	9.9		180		1		25	IBM	94	IBM	1			13		310		166.3	
5/15/2022	21	60	9.5		188		3		33	IBM	91	IBM	1			14		310		173.4	
5/15/2022	22	60	10.1		183		7		34	IBM	81	IBM	2			14		310		164.1	
5/15/2022	23	60	10.2		183		3		29	IBM	89	IBM	2	2		14	14	310	310	162.5	166.6

Average:
Geometric Mean Average:

Limit:

184	5
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

0	IBCM
≥ 75%	Removal Efficiency

see above	≤ 69 4-HR Block Average	ppmc
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see above	≤ 12 8-HR. Block Average	lb/hr
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see above	≤ 345 4-HR Block Average	°F
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see above	≤ 173 4-HR Block Average	klb/hr
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Status Flags

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 15-May-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	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	IC	6	IC	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
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 15-May-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	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	2	IBC	4	IBC	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