



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



Date 7/5/22

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.
7/5/2022	0	60	10.3		191		18		47		61		4			14		310		162.5	
7/5/2022	1	60	10.0		188		19		43		55		3			14		309		166.2	
7/5/2022	2	60	10.1		191		13		34		62		3			14		309		167.4	
7/5/2022	3	60	10.0		193		14		35		59		3	3		14		310	309	167.4	165.9
7/5/2022	4	60	9.6		183		11		33		67		4			14		309		164.7	
7/5/2022	5	60	9.9		191		13		29		56		5			14		309		163.5	
7/5/2022	6	60	10.2		196		13		31		57		8			14		309		162.4	
7/5/2022	7	60	9.7		186		8		37		77		6	6		14	14	309	309	164.3	163.7
7/5/2022	8	60	10.2		186		12		34		65		4			14		309		163.1	
7/5/2022	9	60	10.4		195		12		27		56		4			14		310		163.0	
7/5/2022	10	60	10.5		195		18		38		54		4			14		309		164.4	
7/5/2022	11	60	10.6		200		17		32		47		3	4		14		309	309	163.7	163.6
7/5/2022	12	60	10.5		195		10		24		57		5			14		310		159.8	
7/5/2022	13	60	10.4		183		17		34		50		4			14		309		160.3	
7/5/2022	14	60	10.0		195		15		29		49		5			14		310		165.4	
7/5/2022	15	60	9.9		188		17		36		53		4	4		14	14	309	309	168.4	163.5
7/5/2022	16	60	10.2		191		15		34		56		4			14		309		166.2	
7/5/2022	17	60	10.0		192		13		32		60		4			14		310		162.3	
7/5/2022	18	60	9.9		184		13		32		59		4			14		310		165.8	
7/5/2022	19	60	9.9		190		20		45		56		4	4		14		309	309	165.5	165.0
7/5/2022	20	60	9.9		188		20		41		51		3			14		309		166.0	
7/5/2022	21	60	9.8		187		17		51		67		4			14		310		167.1	
7/5/2022	22	60	10.0		186		18		42		57		4			14		309		164.0	
7/5/2022	23	60	9.7		181		18		45		59		4	4		15	14	309	309	167.4	166.1

Average: Geometric Mean Average:	190	15	OR	59	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 7/5/22

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.
7/5/2022	0	60	10.5		187		19		43		55		8			14		318		166.8	
7/5/2022	1	60	11.0		179		9		44		79		11			13		305		154.6	
7/5/2022	2	60	10.7		181		23		47		51		11			14		315		160.7	
7/5/2022	3	60	10.7		187		18		45		59		10	10		13		312	313	165.8	162.0
7/5/2022	4	60	10.2		189		2		44		95		8			13		296		164.6	
7/5/2022	5	60	10.5		189		3		32		90		7			13		293		166.0	
7/5/2022	6	60	10.1		176		4		27		84		20			13		295		166.7	
7/5/2022	7	60	10.5		193		12		28		58		6	10		13	13	298	295	171.9	167.3
7/5/2022	8	60	8.7		130		15		44		66		609			14		299		173.3	
7/5/2022	9	60	10.8		206		17		33		47		89			14		297		160.3	
7/5/2022	10	34	16.1		303		14		9		0		713			14		313		83.7	
7/5/2022	11	0	20.7	IF	22	IF	4	IF	132	IBF	97	IBF	89	IF	470	12		308	303	0.3	139.1
7/5/2022	12	50	13.6		110		31		47		34		1224			11		304		62.5	
7/5/2022	13	60	12.5		113		29		35		17		188			14		276		71.7	
7/5/2022	14	60	10.8		173		3		40		92		15			14		314		162.2	
7/5/2022	15	60	11.1		190		6		35		84		8	359		14	13	311	301	162.1	114.6
7/5/2022	16	60	11.1		193		10		28		65		7			14		316		164.1	
7/5/2022	17	60	10.9		184		11		36		69		40			14		315		167.0	
7/5/2022	18	60	10.8		190		9		29		68		5			14		317		165.5	
7/5/2022	19	60	11.0		184		7		33		79		5	14		14		314	315	165.1	165.4
7/5/2022	20	60	11.1		191		6		40		84		4			14		303		166.0	
7/5/2022	21	60	11.0		187		15		54		71		6			14		305		167.6	
7/5/2022	22	60	10.7		183		19		56		66		9			14		312		166.7	
7/5/2022	23	60	10.7		188		20		49		60		8	7		14	14	314	309	163.8	166.0

Average: Geometric Mean Average:	183	11	OR	71	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 05-Jul-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	3
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

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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 05-Jul-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	3	3	3	3	3	4	3	3	3	3
1	3	3	3	3	3	3	3	3	3	3	3
2	4	3	4	4	3	3	3	2	2	3	3
3	3	3	4	4	4	3	3	4	4	3	3
4	3	2	3	3	3	3	3	3	3	3	3
5	3	3	3	4	3	3	3	3	3	3	3
6	2	IBC	7	IBC	3	4	3	3	3	3	3
7	3	3	4	3	3	3	4	3	3	3	3
8	3	3	3	2	3	3	2	3	3	4	2
9	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	0	1	IF	1	IF	1	IF	1
11	0	IF	0	IF	0	IF	1	IF	0	IF	0
12	0	IF	0	IF	0	IF	0	IF	0	IF	0
13	0	0	0	0	0	0	1	0	0	1	0
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	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1
22	3	4	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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