



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



Date 5/13/22

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.
5/13/2022	0	60	10.4		155		13		45		72		6			13		306		166.7	
5/13/2022	1	60	10.4		165		7		28		74		7			13		303		164.8	
5/13/2022	2	60	10.3		163		9		31		72		6			14		306		167.0	
5/13/2022	3	60	10.4		173		13		43		70		6	6		13		309	306	165.0	165.9
5/13/2022	4	60	10.2		162		11		39		72		7			13		305		164.4	
5/13/2022	5	60	10.1		173		17		39		56		6			13		312		166.9	
5/13/2022	6	60	10.0		171		8		23		67		7			13		313		165.5	
5/13/2022	7	60	10.0		176		12		33		65		7	7		13	13	312	311	167.1	166.0
5/13/2022	8	60	10.1		158		5		26		80		8			14		305		166.5	
5/13/2022	9	60	10.3		165		2		26		92		7			13		298		165.3	
5/13/2022	10	60	10.2		174		14		35		60		8			13		311		165.4	
5/13/2022	11	60	10.3		169		11		23		54		8	8		14		316	308	167.8	166.3
5/13/2022	12	60	10.2		174		16		43		64		9			14		311		166.4	
5/13/2022	13	60	10.3		168		15		34		56		9			13		315		168.3	
5/13/2022	14	60	10.4		164		7		38		81		8			14		308		167.2	
5/13/2022	15	60	10.3		163		7		36		79		9	8		14	14	309	311	167.1	167.3
5/13/2022	16	60	10.2		161		11		29		63		9			13		314		168.9	
5/13/2022	17	60	10.6		170		29		142		80		9			14		302		164.1	
5/13/2022	18	60	10.3		171		20		75		73		8			14		303		168.0	
5/13/2022	19	60	10.2		165		16		51		69		8	8		13		304	306	166.8	167.0
5/13/2022	20	60	10.2		165		11		55		81		8			14		306		166.8	
5/13/2022	21	60	10.2		161		4		43		89		7			13		305		166.0	
5/13/2022	22	60	10.3		165		7		54		88		8			14		307		166.5	
5/13/2022	23	60	21.0	IB	1	IB	1	IB	46		99	IB	0	IB	8	13	13	311	307	166.5	166.5

Average:
Geometric Mean Average:

Limit:

167	10
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

74
≥ 75% Removal Efficiency

see above
≤ 69 4-HR Block Average

see above
≤ 12 8-HR. Block Average

see above
≤ 345 °F 4-HR Block Average

see above
≤ 173 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 5/13/22

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.
5/13/2022	0	60	10.1		187		2		42		94		1			17		310		167.1	
5/13/2022	1	60	10.1		186		2		43		95		1			15		310		168.5	
5/13/2022	2	60	10.1		192		3		45		92		1			14		310		167.6	
5/13/2022	3	60	10.1		185		2		41		95		1	1		14		310	310	166.9	167.5
5/13/2022	4	60	10.0		187		5		49		90		3			14		310		167.4	
5/13/2022	5	60	10.0		183		4		51		92		2			14		310		168.7	
5/13/2022	6	60	9.8		192		4		41		91		2			14		310		166.1	
5/13/2022	7	60	9.9		191		1		40		96		3	2		14	15	310	310	167.3	167.4
5/13/2022	8	60	10.0		184		2		41		95		4			14		310		167.4	
5/13/2022	9	60	9.8		188		7		47		86		4			14		310		167.2	
5/13/2022	10	60	9.8		182		4		42		91		2			14		310		167.7	
5/13/2022	11	60	10.1		156		1		35		97		2	3		14		310	310	169.1	167.8
5/13/2022	12	60	9.6		176		1		40		97		3			13		310		166.6	
5/13/2022	13	60	9.6		184		0		40		99		3			14		310		167.2	
5/13/2022	14	60	10.0		182		0		43		100		2			13		310		167.3	
5/13/2022	15	60	9.8		186		0		42		99		3	2		12	14	310	310	167.5	167.2
5/13/2022	16	60	9.9		178		2		43		95		2			12		310		169.2	
5/13/2022	17	60	9.9		183		35		170		79		4			17		310		166.1	
5/13/2022	18	60	9.9		182		5		64		93		3			16		310		167.9	
5/13/2022	19	60	9.9		177		1		48		99		2	3		14		310	310	168.2	167.9
5/13/2022	20	60	9.8		175		3		73		96		2			16		310		167.8	
5/13/2022	21	60	10.0		185		1		59		99		2			15		310		167.8	
5/13/2022	22	60	9.9		189		1		58		99		3			16		310		167.4	
5/13/2022	23	60	9.9		186		0		54		100		3	3		14	15	310	310	167.9	167.7

Average:
Geometric Mean Average:

Limit:

183	2
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

97
≥ 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

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 13-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 13-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