



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



Date 5/1/22

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.
5/1/2022	0	60	9.8		162		12		36		66		5			13		307		168.0	
5/1/2022	1	60	9.8		159		6		28		77		5			13		299		167.7	
5/1/2022	2	60	9.7		158		6		31		82		5			13		297		165.8	
5/1/2022	3	60	9.8		167		18		54		66		5	5		14		304	302	168.1	167.4
5/1/2022	4	60	9.8		162		18		40		55		5			14		305		166.3	
5/1/2022	5	60	9.7		166		17		32		48		5			13		310		169.0	
5/1/2022	6	60	9.8		156		18		59		69		5			13		302		168.4	
5/1/2022	7	60	9.9		151		21		69		69		4	5		14	13	305	305	167.2	167.7
5/1/2022	8	60	9.9		143		16		57		72		4			13		307		167.3	
5/1/2022	9	60	9.9		152		18		50		63		4			14		306		167.5	
5/1/2022	10	60	9.8		160		20		45		54		5			13		311		167.9	
5/1/2022	11	60	9.9		164		20		40		49		4	4		14		306	308	167.1	167.5
5/1/2022	12	60	9.8		165		22		59		63		5			13		315		167.3	
5/1/2022	13	60	9.8		160		20		44		54		5			13		313		168.7	
5/1/2022	14	60	10.0		166		14		34		58		5			13		307		167.1	
5/1/2022	15	60	9.8		152		10		34		70		4	5		13	13	306	310	167.8	167.8
5/1/2022	16	60	9.9		146		7		42		83		4			13		305		166.5	
5/1/2022	17	60	10.0		164		16		38		58		4			14		307		168.2	
5/1/2022	18	60	10.2		169		18		45		60		4			15		306		167.1	
5/1/2022	19	60	10.1		170		18		45		60		5	4		14		307	306	166.3	167.0
5/1/2022	20	60	10.3		167		14		40		65		4			13		304		161.8	
5/1/2022	21	60	10.1		170		17		38		56		4			13		305		164.3	
5/1/2022	22	60	9.9		180		22		36		39		5			14		310		167.4	
5/1/2022	23	60	9.8		173		18		26		31		5	5		14	14	319	310	167.2	165.2

Average:
Geometric Mean Average:

Limit:

162	15
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

63
≥ 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 5/1/22

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.
5/1/2022	0	60	9.5		195		0		48		100		2			15		310		168.1	
5/1/2022	1	60	9.5		193		0		35		99		2			14		310		166.4	
5/1/2022	2	60	9.6		195		0		44		99		1			15		310		167.6	
5/1/2022	3	60	9.7		193		0		45		100		1	2		13		310	310	167.9	167.5
5/1/2022	4	60	9.7		196		1		41		98		8			13		310		166.6	
5/1/2022	5	60	9.4		196		1		48		98		2			13		310		167.0	
5/1/2022	6	60	9.5		195		0		56		100		2			12		310		166.4	
5/1/2022	7	60	9.5		197		7		104		93		1	3		12	13	310	310	166.7	166.7
5/1/2022	8	60	9.4		195		0		57		100		2			12		310		167.4	
5/1/2022	9	60	9.3		196		0		48		100		3			12		310		167.3	
5/1/2022	10	60	9.2		185		0		51		100		1			13		310		168.1	
5/1/2022	11	60	9.2		185		0		47		99		2	2		13		310	310	167.6	167.6
5/1/2022	12	60	9.3		197		0		43		100		3			13		310		166.7	
5/1/2022	13	60	9.0		193		0		49		99		2			13		310		167.2	
5/1/2022	14	60	9.1		189		0		49		100		1			13		310		168.3	
5/1/2022	15	60	9.1		187		0		54		100		1	2		13	13	310	310	167.1	167.4
5/1/2022	16	60	9.2		192		0		57		99		2			11		310		167.4	
5/1/2022	17	60	9.3		198		0		63		99		2			10		310		168.6	
5/1/2022	18	60	9.4		197		1		57		99		3			13		310		166.4	
5/1/2022	19	60	9.4		200		1		62		98		1	2		15		310	310	166.0	167.1
5/1/2022	20	60	9.5		196		1		60		99		2			17		310		166.0	
5/1/2022	21	60	9.3		198		0		54		99		4			16		310		167.8	
5/1/2022	22	60	9.5		199		0		50		100		2			14		310		165.9	
5/1/2022	23	60	9.4		191		0		52		100		2	2		15	14	310	310	166.7	166.6

Average:
Geometric Mean Average:

Limit:

194	0
≤ 205 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

100
≥ 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 01-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 01-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