



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



Date 1/12/24

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.
1/12/2024	0	60	9.3		142		9		19		49		0			13		309		165.7	
1/12/2024	1	60	9.4		136		8		19		57		0			14		309		167.7	
1/12/2024	2	60	9.7		143		13		20		37		0			13		309		166.6	
1/12/2024	3	60	9.6		142		12		23		45		0	0		14		309	309	167.5	166.9
1/12/2024	4	60	9.6		143		16		27		43		1			13		310		166.9	
1/12/2024	5	60	9.8		140		16		18		9		0			14		309		166.2	
1/12/2024	6	60	9.6		139		16		21		26		1			14		309		165.5	
1/12/2024	7	60	9.6		143		17		23		25		1	1		13	13	310	310	168.5	166.8
1/12/2024	8	60	9.9		140		28		24		0		1			13		309		167.4	
1/12/2024	9	60	10.1		141		15		24	IBM	38	IBM	1			13		309		160.5	
1/12/2024	10	60	10.1		140		25		46		47		0			13		309		165.6	
1/12/2024	11	60	10.1		141		19		30		38		0	1		13		310	309	167.5	165.2
1/12/2024	12	60	10.2		141		17		33		49		1			13		309		162.7	
1/12/2024	13	60	10.1		139		18		35		47		1			13		310		168.1	
1/12/2024	14	60	10.1		143		10		20		50		1			14		310		166.6	
1/12/2024	15	60	9.9		142		14		21		35		1	1		13	13	309	309	166.4	166.0
1/12/2024	16	60	10.0		140		20		19		0		2			12		309		167.6	
1/12/2024	17	60	9.9		141		16		25		37		1			13		310		165.1	
1/12/2024	18	60	9.8		142		19		28		32		1			13		309		165.6	
1/12/2024	19	60	9.7		139		20		36		43		0	1		13		309	309	165.7	166.0
1/12/2024	20	60	9.8		141		20		35		43		0			13		309		167.5	
1/12/2024	21	60	9.6		141		16		31		48		0			13		310		164.3	
1/12/2024	22	60	9.6		141		16		33		51		0			13		309		166.5	
1/12/2024	23	60	9.5		139		10		27		65		0	0		13	13	308	309	167.1	166.4

Average:
Geometric Mean Average:

Limit:

141	16
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

40
≥ 80% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

see above
≥ 12 8-HR. Block Average

lb/hr

see above
≤ 345 °F 4-HR Block Average

°F

see above
≤ 173 4-HR Block Average

klb/hr

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 1/12/24

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.
1/12/2024	0	60	9.9		139		5		18		71		14			15		310		166.0	
1/12/2024	1	60	10.0		141		7		18		64		15			15		310		164.6	
1/12/2024	2	60	9.9		139		5		17		68		14			14		310		167.4	
1/12/2024	3	60	9.9		141		7		24		70		14	14		14		310	310	168.0	166.5
1/12/2024	4	60	9.6		139		6		21		71		11			13		310		165.8	
1/12/2024	5	60	9.8		138		10		19		49		11			13		310		166.6	
1/12/2024	6	60	9.8		141		9		18		51		12			13		310		167.9	
1/12/2024	7	60	9.9		140		14		26		47		12	11		13	14	310	310	167.5	166.9
1/12/2024	8	60	10.2		139		25		33		23	IBM	11			13		310		167.7	
1/12/2024	9	60	10.5		139		14		19	IBM	28	IBM	11			14		310		162.3	
1/12/2024	10	60	10.3		139		19		33		43		11			13		310		166.7	
1/12/2024	11	60	10.3		139		13		31		57		10	11		14		310	310	168.1	166.2
1/12/2024	12	60	10.3		140		11		34		68		10			14		310		166.4	
1/12/2024	13	60	10.2		139		21		43		52		15			13		310		167.4	
1/12/2024	14	60	10.2		140		14		30		54		13			14		310		167.1	
1/12/2024	15	60	10.5		137		16		28		42		14	13		14	14	311	310	165.3	166.5
1/12/2024	16	60	10.0		141		8		26		70		40			15		310		166.8	
1/12/2024	17	60	9.8		138		8		36		77		14			16		310		165.5	
1/12/2024	18	60	10.2		141		15		35		56		13			16		310		167.6	
1/12/2024	19	60	10.1		139		21		47		55		12	20		16		310	310	167.7	166.9
1/12/2024	20	60	10.3		140		20		51		61		12			15		310		166.7	
1/12/2024	21	60	10.1		141		31		56		45		11			14		310		167.6	
1/12/2024	22	60	10.1		140		60		58		0		12			13		310		167.4	
1/12/2024	23	60	10.0		140		10		38		75		12	12		13	15	310	310	166.2	167.0

Average:
Geometric Mean Average:

Limit:

140	13
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

58
≥ 80% 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 12-Jan-2024

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	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	0	IC	5	IC	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



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 12-Jan-2024

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	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1
6	0	IBC	5	IBC	1	1	1	1	1	1	2
7	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	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	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	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