



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



Date 2/3/24

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.
2/3/2024	0	60	10.4		145		19		68		72		0			13		309		165.8	
2/3/2024	1	60	10.6		140		11		69		84		26			14		308		166.1	
2/3/2024	2	60	10.5		141		18		84		79		1			13		310		162.0	
2/3/2024	3	60	10.4		142		18		77		76		0	7		12		309	309	167.8	165.4
2/3/2024	4	60	10.4		145		21		84		75		0			13		309		168.6	
2/3/2024	5	60	10.5		136		18		72		75		1			13		309		166.6	
2/3/2024	6	60	10.3		143		16		56		72		1			13		310		166.7	
2/3/2024	7	60	10.2		136		19		67		71		0	1		13	13	309	309	167.5	167.3
2/3/2024	8	60	10.6		140		19		55		65		2			13		310		161.8	
2/3/2024	9	60	10.1		138		16		38		57		0			13		309		168.2	
2/3/2024	10	60	10.4		125		18		56		68		8			13		310		167.9	
2/3/2024	11	60	10.2		139		20		62		67		12	6		13		308	309	169.8	166.9
2/3/2024	12	60	10.2		138		22		80		72		0			13		310		166.6	
2/3/2024	13	60	10.2		140		32		111		71		0			13		309		167.9	
2/3/2024	14	60	10.1		142		20		74		73		1			13		310		166.5	
2/3/2024	15	60	9.7		140		17		68		75		1	1		13	13	309	309	169.0	167.5
2/3/2024	16	60	10.2		125		22		79		72		4			13		308		163.5	
2/3/2024	17	60	9.9		147		20		79		74		1			13		310		169.6	
2/3/2024	18	60	10.2		136		20		86		76		3			12		309		167.8	
2/3/2024	19	60	10.3		143		21		80		73		0	2		13		309	309	167.8	167.2
2/3/2024	20	60	10.6		134		20		68		71		1			13		309		158.6	
2/3/2024	21	60	10.5		144		16		58		72		1			13		311		162.4	
2/3/2024	22	60	10.3		140		28		80		65		0			13		309		169.0	
2/3/2024	23	60	10.5		140		36		94		62		3	1		14	13	309	309	168.4	164.6

Average:
Geometric Mean Average:

Limit:

139	20
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

72
≥ 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

Status Flags

- I - Invalid
- B - Bad
- C - Calibration
- M - Maintenance
- F - Offline
- P - Purge
- T - Out of Control
- E - Excluded
- ^ - Startup
- * - Shutdown



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Date 2/3/24

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.
2/3/2024	0	60	10.1		136		21		70		70		5			14		310		167.7	
2/3/2024	1	60	10.4		139		17		64		73		6			14		310		161.6	
2/3/2024	2	60	10.0		139		22		73		70		5			14		310		169.4	
2/3/2024	3	60	10.1		138		16		65		75		5	5		14		310	310	169.0	166.9
2/3/2024	4	60	10.2		140		17		65		74		6			14		310		166.1	
2/3/2024	5	60	10.1		140		16		66		75		5			14		310		167.9	
2/3/2024	6	60	10.2		140		12		55		78		6			14		310		167.1	
2/3/2024	7	60	10.2		140		19		66		71		6	6		14	14	310	310	167.0	167.0
2/3/2024	8	60	10.3		138		7		37		82		7			13		310		165.4	
2/3/2024	9	60	10.1		142		8		45		81		6			14		310		169.9	
2/3/2024	10	60	10.0		138		9		47		81		5			13		310		169.2	
2/3/2024	11	60	10.2		141		24		78		69		5	6		14		310	310	166.8	167.8
2/3/2024	12	60	10.1		137		23		76		70		5			13		310		165.8	
2/3/2024	13	60	10.1		139		22		82		73		7			14		310		165.6	
2/3/2024	14	60	10.0		140		30		97		69		5			14		310		168.3	
2/3/2024	15	60	10.1		139		24		76		68		5	6		14	14	310	310	167.0	166.7
2/3/2024	16	60	10.0		140		22		71		70		5			13		310		168.1	
2/3/2024	17	60	10.1		140		19		66		70		5			14		310		166.8	
2/3/2024	18	60	10.1		137		24		80		70		5			14		310		166.0	
2/3/2024	19	60	10.1		139		22		77		72		5	5		14		310	310	166.2	166.8
2/3/2024	20	60	10.0		139		21		71		70		5			14		310		167.4	
2/3/2024	21	60	10.1		140		26		83		68		5			14		310		167.7	
2/3/2024	22	60	10.2		140		31		91		66		4			14		310		167.1	
2/3/2024	23	60	10.2		141		30		104		71		5	5		14	14	310	310	164.7	166.7

Average: Geometric Mean Average:	<div style="background-color: yellow; padding: 5px; border: 1px solid black;">139</div>	<div style="background-color: green; padding: 5px; border: 1px solid black;">19</div>	OR	<div style="background-color: green; padding: 5px; border: 1px solid black;">73</div>	<div style="background-color: grey; padding: 5px; border: 1px solid black;">see above</div>	<div style="background-color: green; padding: 5px; border: 1px solid black;">see above</div>	<div style="background-color: purple; padding: 5px; border: 1px solid black;">see above</div>	<div style="background-color: grey; padding: 5px; border: 1px solid black;">see above</div>
Limit:	<div style="border: 1px solid black; padding: 5px;"> ≤ 150 24-HR Block Avg. </div>	<div style="border: 1px solid black; padding: 5px;"> ≤ 29 24-HR Geometric Mean </div>	OR	<div style="border: 1px solid black; padding: 5px;"> $\geq 80\%$ Removal Efficiency </div>	<div style="border: 1px solid black; padding: 5px;"> ≤ 69 ppmc 4-HR Block Average </div>	<div style="border: 1px solid black; padding: 5px;"> ≥ 12 lb/hr 8-HR. Block Average </div>	<div style="border: 1px solid black; padding: 5px;"> ≤ 345 °F 4-HR Block Average </div>	<div style="border: 1px solid black; padding: 5px;"> ≤ 173 klb/hr 4-HR Block Average </div>

Status Flags

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 03-Feb-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	4	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 03-Feb-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	1	IC	5	IC	1	1	1	1	1	1	2
7	1	1	1	1	1	1	1	IB	1	1	1
8	1	1	IB	1	1	1	1	1	1	1	1
9	1	1	IB	1	1	1	1	1	1	1	1
10	1	1	1	1	IB	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

Status Flags

I - Invalid C - Calibration F - Offline T - Out of Control ^ - Startup
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown