



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



Date 3/10/24

Plant Wheelabrator North Andover

NOTE: Emission & Process results may change after Startup, Shutdown, Malfunction data validation

Unit Unit 1

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.
3/10/2024	0	60	10.8		142		21		63		66		2			13		309		166.7	
3/10/2024	1	60	11.1		140		23		58		60		0			13		309		166.2	
3/10/2024	2	60	10.7		141		31		105		71		3			13		310		166.5	
3/10/2024	3	60	10.5		141		39		120		67		10	4		13		310	310	167.3	166.7
3/10/2024	4	60	10.9		140		42		115		64		2			13		309		167.3	
3/10/2024	5	60	10.6		141		21		55		63		4			13		309		167.0	
3/10/2024	6	60	10.8		146		22		65		66		36			14		311		165.9	
3/10/2024	7	60	10.4		148		28		88		68		30	18		14	13	309	310	166.7	166.7
3/10/2024	8	60	10.6		136		30		83		63		12			13		308		167.7	
3/10/2024	9	60	10.5		137		32		106		70		16			13		309		166.0	
3/10/2024	10	60	10.6		139		18		77		77		25			13		309		167.0	
3/10/2024	11	60	10.5		139		16		66		76		16	17		14		310	309	167.7	167.1
3/10/2024	12	60	10.7		137		14		37		61		1			13		310		164.9	
3/10/2024	13	60	10.7		143		19		72		74		2			12		310		168.0	
3/10/2024	14	60	10.7		139		17		54		68		15			13		310		167.4	
3/10/2024	15	60	10.6		141		19		39		53		0	5		13	13	309	310	165.6	166.5
3/10/2024	16	60	10.6		134		20		48		58		50			14		309		166.7	
3/10/2024	17	60	10.7		144		28		52		46		85			13		309		167.0	
3/10/2024	18	60	10.8		134		22		43		49		2			13		310		166.4	
3/10/2024	19	60	11.5		139		20		38		48		0	34		14		310	310	151.1	162.8
3/10/2024	20	60	10.7		135		24		52		54		23			13		310		161.5	
3/10/2024	21	60	11.0		139		23		40		43		2			13		309		161.8	
3/10/2024	22	60	10.9		130		23		42		45		115			13		310		160.1	
3/10/2024	23	60	11.2		135		20		25		22		1	35		13	13	309	310	155.3	159.7

Average: Geometric Mean Average:	139	23	<b>OR</b>	61	see above	see above	see above	see above
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 80% 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



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Date 3/10/24

Plant Wheelabrator North Andover

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Unit Unit 2

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.
3/10/2024	0	60	9.9		138		2		61		97		4			14		310		167.7	
3/10/2024	1	60	10.0		133		6		58		90		4			15		310		167.5	
3/10/2024	2	60	9.9		138		5		67		92		4			14		310		168.1	
3/10/2024	3	60	9.9		138		28		73		61		4	4		14		310	310	167.7	167.8
3/10/2024	4	60	9.8		135		2		59		96		5			13		310		166.7	
3/10/2024	5	60	9.8		132		3		52		94		5			13		310		166.6	
3/10/2024	6	60	9.7		132		7		53		87		5			14		310		169.4	
3/10/2024	7	60	9.7		138		5		49		91		5	5		13	14	310	310	167.7	167.6
3/10/2024	8	60	9.6		136		4		54		93		4			13		310		168.1	
3/10/2024	9	60	9.8		136		3		52		95		4			13		310		166.3	
3/10/2024	10	60	9.7		138		3		56		95		5			13		310		168.2	
3/10/2024	11	60	9.8		136		1		55		98		5	4		13		310	310	166.7	167.4
3/10/2024	12	60	9.7		137		1		53		97		5			13		310		169.1	
3/10/2024	13	60	9.9		133		3		56		95		6			14		310		166.6	
3/10/2024	14	60	9.7		138		3		55		95		4			13		310		165.9	
3/10/2024	15	60	9.7		143		10		74		86		5	5		13	13	310	310	168.1	167.4
3/10/2024	16	60	10.3		129		4		48		92		5			14		310		154.7	
3/10/2024	17	60	9.9		129		2		52		96		278			13		308		155.7	
3/10/2024	18	60	9.6		138		4		45		92		5			13		311		162.9	
3/10/2024	19	60	9.8		136		1		40		99		6	74		14		310	310	162.4	158.9
3/10/2024	20	60	9.7		137		4		56		94		6			13		310		164.1	
3/10/2024	21	60	9.7		141		3		49		93		6			14		310		164.6	
3/10/2024	22	60	9.6		141		3		51		94		6			14		310		166.8	
3/10/2024	23	60	9.7		134		2		48		96		6	6		14	14	310	310	162.1	164.4

Average: Geometric Mean Average:	<b>136</b>	<b>3</b>	<b>OR</b>	<b>94</b>	see above	see above	see above	see above
Limit:	<b>≤ 150</b> 24-HR Block Avg.	<b>≤ 29</b> 24-HR Geometric Mean		<b>≥ 80%</b> Removal Efficiency	<b>≤ 69</b> ppmc 4-HR Block Average	<b>≥ 12</b> lb/hr 8-HR. Block Average	<b>≤ 345</b> °F 4-HR Block Average	<b>≤ 173</b> klb/hr 4-HR Block Average

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# WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 10-Mar-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	1	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**

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# WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 10-Mar-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	2	1	1
2	1	2	2	2	2	2	2	2	2	2	1
3	2	2	2	2	2	1	1	1	1	1	1
4	2	1	1	1	2	2	1	1	2	2	1
5	1	2	2	1	1	2	2	2	2	2	1
6	1	IC	6	IC	2	2	1	2	2	2	2
7	2	2	2	1	2	2	2	2	2	2	1
8	1	2	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	2	1	1	2	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**

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 B - Bad                            M - Maintenance                      P - Purge                            E - Excluded                            \* - Shutdown