



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



Date 5/16/24

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.
5/16/2024	0	60	9.7		141		26		98		74		0			16		309		167.3	
5/16/2024	1	60	9.5		143		23		77		70		0			15		310		169.7	
5/16/2024	2	60	10.1		138		24		83		71		0			13		310		170.7	
5/16/2024	3	60	9.8		142		28		80		65		1	0		13		309	309	170.4	169.5
5/16/2024	4	60	9.7		142		21		59		64		1			13		309		170.1	
5/16/2024	5	60	10.1		138		21		55		62		0			13		309		169.0	
5/16/2024	6	60	10.1		143		17		60		72		0			13		310		164.8	
5/16/2024	7	60	10.1		139		14		53		73		1	0		12	13	309	309	168.0	168.0
5/16/2024	8	60	10.4		143		19		85		78		1			12		309		168.3	
5/16/2024	9	60	10.3		140		24		108		77		1			13		309		168.5	
5/16/2024	10	60	10.4		142		20		91		78		1			17		309		167.3	
5/16/2024	11	60	10.1		143		14		56		76		1	1		18		310	309	166.0	167.5
5/16/2024	12	60	10.2		138		11		43		76		1			11		309		167.9	
5/16/2024	13	60	10.1		143		15		45		66		2			22		309		169.2	
5/16/2024	14	60	10.5		139		27		61		55		0			14		310		167.9	
5/16/2024	15	60	10.1		140		18		66		73		0	1		12	15	309	309	167.1	168.0
5/16/2024	16	60	9.7		143		17		58		71		1			14		309		171.8	
5/16/2024	17	60	10.1		141		24		74		68		3			11		310		167.9	
5/16/2024	18	60	10.1		138		14		52		74		0			13		309		167.0	
5/16/2024	19	60	9.8		143		13		51		74		2	2		14		310	309	167.3	168.5
5/16/2024	20	60	9.8		139		14		50		71		1			14		309		166.5	
5/16/2024	21	60	9.8		139		16		45		65		1			21		309		168.1	
5/16/2024	22	60	10.0		140		17		45		62		0			19		309		165.5	
5/16/2024	23	60	10.1		142		17		55		69		0	1		17	15	309	309	165.2	166.3

Average: Geometric Mean Average:	141	18	<b>OR</b>	71	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 5/16/24

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

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.	4 Hr Block
5/16/2024	0	0	21.4	IF	1	IF	4	IF	0	IBF	0	IBF	0	IF		1		86		0.4		
5/16/2024	1	0	21.4	IF	1	IF	4	IF	0	IBF	0	IBF	0	IF		1		85		0.4		
5/16/2024	2	0	21.4	IF	1	IF	5	IF	0	IBF	0	IBF	0	IF		1		85		0.4		
5/16/2024	3	5	20.6	ICF	1	ICF	4	ICF	0	IBF	0	IBCF	1	ICF	0	ICF		83	85	0.4	0.4	
5/16/2024	4	12	17.5	IBCF	81	IBCF	69	IBCF	0	IBF	0	IBCF	583	IBCF		1		82		0.3		
5/16/2024	5	0	21.4	IF	0	IF	5	IF	165	IBCF	97	IBCF	0	IF		1		81		0.2		
5/16/2024	6	0	21.5	IF	0	IF	5	IF	0	IBF	0	IBF	0	IF		1		78		0.3		
5/16/2024	7	0	21.5	IF	0	IF	5	IF	0	IBF	0	IBF	0	IF	146	IBCF	1	1	76	79	0.2	0.2
5/16/2024	8	0	21.4	IF	0	IF	5	IF	0	IBF	0	IBF	0	IF		1		76		0.3		
5/16/2024	9	0	21.5	IF	0	IF	5	IF	0	IBF	0	IBF	0	IF		1		77		0.3		
5/16/2024	10	0	21.4	IF	0	IF	5	IF	0	IBF	0	IBF	0	IF		1		78		0.3		
5/16/2024	11	0	21.4	IF	0	IF	5	IF	0	IBF	0	IBF	0	IF	0	IF	1	78	77	0.3	0.3	
5/16/2024	12	0	21.4	IF	0	IF	5	IF	0	IBF	0	IBF	0	IF		1		80		0.4		
5/16/2024	13	0	20.5	IF	3	IF	9	IF	0	IBF	0	IBF	34	IF		1		89		0.3		
5/16/2024	14	26	17.5	IF	114	IF	0	IF	0	IBF	0	IBF	36	IF		9		118		0.4		
5/16/2024	15	60	17.3		109		3		0	0	0	29			14	14	134	134	3.0	3.0		
5/16/2024	16	60	16.8		129		1		0	0	0	46			14		161		18.7			
5/16/2024	17	60	15.4		125		0		0	0	0	44			14		193		30.4			
5/16/2024	18	60	15.9		131		0		1	35	41	14			14		220		32.1			
5/16/2024	19	60	12.5		87		0		0	86	5	14	34		14		241	204	42.9	31.0		
5/16/2024	20	60	10.9		105		8		7	0	3	13			13		252		79.1			
5/16/2024	21	60	11.2		120		26		21	0	20	13			13		304		146.2			
5/16/2024	22	60	9.4		139		29		40	27	106	12			12		304		156.7			
5/16/2024	23	60	9.5		129		40		45	11	80	14	52		14	13	312	293	152.3	133.6		

Average: Geometric Mean Average:	119	3	0	<b>OR</b>	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

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



Date 16-May-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	0
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

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



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



Date 16-May-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	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
1	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
2	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
3	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
4	2		2		2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
5	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
6	1	ICF	23	ICF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	4
7	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
8	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
9	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
10	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
11	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
12	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
13	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	2
14	2	IF	2	IF	2	IF	2	IF	2	IF	2	IF	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

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