



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



Date 4/8/24

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.	4 Hr Block
4/8/2024	0	0	20.0	IF	0	IF	6	IF	-117	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	1	0	20.0	IF	0	IF	6	IF	-70	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	2	0	20.0	IF	0	IF	6	IF	-71	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	3	5	19.3	ICF	0	ICF	50	ICF	-70	IBF	0	IBCF	0	ICF	0	ICF		132	132	0.0	0.0	
4/8/2024	4	12	16.7	IBCF	55	IBCF	51	IBCF	-61	IBF	0	IBCF	457	IBCF		0		132		0.0		
4/8/2024	5	0	20.0	IF	0	IF	6	IF	152	IBCF	96	IBCF	0	IF		0		132		0.0		
4/8/2024	6	0	20.0	IF	0	IF	6	IF	-82	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	7	0	20.0	IF	0	IF	5	IF	-138	IBF	0	IBF	0	IF	114	IBCF	0	0	132	132	0.0	0.0
4/8/2024	8	0	20.0	IF	0	IF	5	IF	-464	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	9	0	20.0	IF	0	IF	4	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	10	0	20.0	IF	0	IF	4	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	11	0	20.0	IF	0	IF	4	IF	0	IBF	0	IBF	0	IF	0	IF	0	0	132	132	0.0	0.0
4/8/2024	12	0	20.0	IF	0	IF	4	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	13	0	20.0	IF	0	IF	6	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	14	0	20.0	IF	0	IF	92	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	15	0	20.0	IF	0	IF	6	IF	0	IBF	0	IBF	0	IF	0	IF	0	0	132	132	0.0	0.0
4/8/2024	16	0	20.0	IF	0	IF	94	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	17	0	20.0	IF	0	IF	94	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	18	0	20.0	IF	0	IF	95	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	19	0	20.0	IF	0	IF	94	IF	0	IBF	0	IBF	0	IF	0	IF	0	0	132	132	0.0	0.0
4/8/2024	20	0	20.0	IF	0	IF	95	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	21	0	20.0	IF	0	IF	95	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	22	0	20.0	IF	0	IF	6	IF	0	IBF	0	IBF	0	IF		0		132		0.0		
4/8/2024	23	0	20.0	IF	0	IF	6	IF	0	IBF	0	IBF	0	IF	0	IF	0	0	132	132	0.0	0.0

Average:  
Geometric Mean Average:

Limit:

2 IBCF
15 IBCF
≤ 150 24-HR Block Avg.

OR

0 IBCF
≥ 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 4/8/24

Plant Wheelabrator North Andover

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.
4/8/2024	0	60	7.9		139		0		43		100		8			14		310		166.7	
4/8/2024	1	60	8.0		140		1		58		99		8			14		310		165.3	
4/8/2024	2	60	8.2		140		0		59		100		7			14		310		166.5	
4/8/2024	3	60	8.3		138		10		93		89		6	7		14		310	310	166.2	166.2
4/8/2024	4	60	8.4		138		10		79		88		5			12		310		166.3	
4/8/2024	5	60	8.4		141		2		45		96		5			13		310		165.4	
4/8/2024	6	60	8.3		141		0		16		100		7			12		310		163.1	
4/8/2024	7	60	7.9		139		0		22		100		7	6		12	13	310	310	167.2	165.5
4/8/2024	8	60	7.9		139		0		28		100		6			14		310		167.0	
4/8/2024	9	60	8.2		140		5		27		81		6			14		310		168.9	
4/8/2024	10	60	8.5		139		1		22		97		6			14		310		165.6	
4/8/2024	11	60	8.2		139		0		18		100		8	7		14		310	310	166.6	167.0
4/8/2024	12	60	8.6		139		4		47		92		7			14		310		167.7	
4/8/2024	13	60	8.5		141		1		37		97		8			13		310		166.6	
4/8/2024	14	60	8.2		140		0		25		98		7			13		310		167.7	
4/8/2024	15	60	8.2		139		0		18		100		7	7		13	13	310	310	166.5	167.1
4/8/2024	16	60	8.0		140		0		24		100		8			12		310		165.6	
4/8/2024	17	60	8.0		140		0		23		100		7			11		310		166.1	
4/8/2024	18	60	8.1		138		0		29		100		7			12		310		167.5	
4/8/2024	19	60	8.1		139		0		35		100		7	7		14		310	310	167.5	166.7
4/8/2024	20	60	8.1		141		0		34		100		6			14		310		168.1	
4/8/2024	21	60	8.2		141		0		40		99		7			14		310		167.3	
4/8/2024	22	60	8.1		139		1		36		98		6			15		309		166.8	
4/8/2024	23	60	8.1		139		0		31		100		6	6		15	13	310	310	164.0	166.5

Average: Geometric Mean Average:	140	0	<b>OR</b>	100	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 08-Apr-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	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
1	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
2	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
3	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
4	0		0		0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
5	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
6	0	ICF	22	ICF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	2
7	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
8	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	1	IF	0	IF	0	IF	0
9	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
10	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
11	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
12	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
13	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
14	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
15	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
16	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
17	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
18	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
19	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
20	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
21	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
22	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0
23	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0	IF	0

**Status Flags**

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Date 08-Apr-2024

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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	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	1	2	2	2	1
14	2	2	2	2	2	2	2	2	1	2	1
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	1	2	2	2	2	2	1	2	1
18	2	2	1	1	1	1	1	1	1	1	1
19	1	2	1	1	1	1	1	2	1	1	1
20	2	1	1	2	1	2	1	1	1	2	1
21	1	1	2	1	1	2	1	1	1	2	1
22	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	2	1	1

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