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

Wheelabrator TECHNOLOGIES

WASTE INNOVATIONS
PERFORMANCE FOR THE PLANET

Date 9/12/25
NOTE: Emission & Process results may change after Startup, Shutdown, Malfunction data validation

Plant Wheelabrator North Andover
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
9/12/2025	0	60	10.3		142		17		39		56		1				13		315		167.4	
9/12/2025	1	60	10.3		139		18		38		54		1				13		314		167.7	
9/12/2025	2	60	10.3		144		13		32		61		2				13		314		166.5	
9/12/2025	3	60	10.5		137		18		32		44		1		1		13		314	314	168.4	167.5
9/12/2025	4	60	10.6		141		3		25		89		0				13		315		167.7	
9/12/2025	5	60	10.6		140		4		38		88		1				13		315		167.9	
9/12/2025	6	60	10.3		142		1		40		99		1				13		314		167.0	
9/12/2025	7	60	10.5		139		6		46		88		1		1		13	13	314	314	168.3	167.7
9/12/2025	8	60	10.8		142		14		46		69		1				13		315		168.5	
9/12/2025	9	60	10.8		138		13		52		74		1				13		314		166.4	
9/12/2025	10	60	10.6		143		16		53		70		1				13		315		167.5	
9/12/2025	11	60	10.6		138		13		46		71		0		1		13		314	315	168.2	167.6
9/12/2025	12	60	10.4		141		1		46		98		1				13		315		167.9	
9/12/2025	13	60	10.2		138		0		45		99		3				13		314		160.9	
9/12/2025	14	60	10.3		142		0		34		100		2				13		315		164.3	
9/12/2025	15	60	9.9		143		0		33		100		1		2		13	13	315	315	167.8	165.2
9/12/2025	16	60	10.0		139		0		49		100		1				13		313		166.7	
9/12/2025	17	60	10.1		143		0		42		100		1				13		315		167.6	
9/12/2025	18	60	9.8		139		3		48		95		1				13		314		170.8	
9/12/2025	19	60	10.5		142		0		37		100		1		1		13		315	314	167.5	168.1
9/12/2025	20	60	10.5		140		0		35		100		1				13		315		167.9	
9/12/2025	21	60	11.1		133		0		33		100		2				13		313		162.6	
9/12/2025	22	60	10.2		141		1		36		96		2				13		315		176.3	
9/12/2025	23	60	10.7		139		0		37		99		1		1		13	13	314	314	168.0	168.7

Average:	140					see above	see above	see above	see above			
Geometric Mean Average:		1			98							
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean	OR		≥ 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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WASTE INNOVATIONS
PERFORMANCE FOR THE PLANET

Date 9/12/25
NOTE: Emission & Process results may change after Startup, Shutdown, Malfunction data validation

Plant Wheelabrator North Andover
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
9/12/2025	0	0	20.7	IF	4	IF	5	IF	0	IBF	0	IBF	1	IF			0		71		0.0	
9/12/2025	1	0	19.9	IF	109	IF	60	IF	0	IBF	0	IBF	250	IF			0		79		0.0	
9/12/2025	2	0	19.1	IF	126	IF	2	IF	0	IBF	0	IBF	95	IF			11		92		0.0	
9/12/2025	3	0	18.4	ICF	97	ICF	0	ICF	0	IBF	0	IBCF	76	ICF	105	ICF	14		100	85	7.6	1.9
9/12/2025	4	0	16.1	IBCF	93	IBCF	32	IBCF	0	IBF	0	IBCF	409	IBCF			13		112		18.7	
9/12/2025	5	0	18.7	IF	152	IF	0	IF	65	IBCF	100	IBCF	36	IF			13		128		23.1	
9/12/2025	6	0	16.7	IF	127	IF	0	IF	0	IBF	0	IBF	30	IF			13		173		38.0	
9/12/2025	7	0	15.6	IF	108	IF	0	IF	3	IBF	100	IBF	23	IF	124	IBCF	13	10	213	157	51.5	32.8
9/12/2025	8	15	12.6	IF^	213	IF^	30	IF^	42	IBF	29	IBF^	42	IF^			13		305		120.2	
9/12/2025	9	60	10.9		145		30		80		62		27				14		288		156.3	
9/12/2025	10	60	10.8		138		58		75		23		26				13		301		166.4	
9/12/2025	11	60	10.8		139		29		87		66		15		23		14		302	297	165.9	162.9
9/12/2025	12	60	10.7		140		0		56		100		17				13		310		165.3	
9/12/2025	13	60	10.5		141		4		74		94		22				14		315		165.2	
9/12/2025	14	60	10.6		140		6		78		92		22				13		315		166.8	
9/12/2025	15	60	10.8		139		5		63		93		21		20		14	14	315	314	167.1	166.1
9/12/2025	16	60	10.7		141		1		53		98		19				13		315		165.5	
9/12/2025	17	60	10.5		137		0		53		99		18				14		315		168.5	
9/12/2025	18	60	10.7		140		1		52		98		18				14		315		167.5	
9/12/2025	19	60	10.9		137		8		71		89		17		18		13		315	315	168.6	167.5
9/12/2025	20	60	11.2		140		5		58		91		15				14		315		168.7	
9/12/2025	21	60	11.3		140		7		59		88		14				13		315		168.3	
9/12/2025	22	60	11.2		140		6		55		90		14				14		315		167.0	
9/12/2025	23	60	10.8		139		4		61		93		12		14		14	14	315	315	168.4	168.1

Average:	140				see above	see above	see above	see above
Geometric Mean Average:		4		94				
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean	OR	≥ 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
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OPACITY REPORT

Date 12-Sep-2025

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	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	2	IC	5	IC	1	1	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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Date 12-Sep-2025

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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	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1
1	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1
2	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1
3	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1
4	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1
5	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1
6	2	ICF	23	ICF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	3
7	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1	IF	1
8	1	IF^	1	IF^	1	IF^	1	IF^	1	IF^	1	IF^	1	IF^	1	IF^	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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