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

PERFORMANCE FOR THE PLANET

Date 4/27/24
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
4/27/2024	0	60	10.7		142		7		79		91		0				13		309		167.8	
4/27/2024	1	60	10.7		141		17		101		83		0				13		309		168.6	
4/27/2024	2	60	10.8		140		9		89		90		0				13		309		167.6	
4/27/2024	3	60	10.8		141		20		107		81		0		0		12		309	309	167.1	167.8
4/27/2024	4	60	10.9		146		15		90		83		0				13		309		166.6	
4/27/2024	5	60	10.9		140		21		116		82		0				12		309		165.0	
4/27/2024	6	60	10.7		141		20		117		83		0				13		310		167.5	
4/27/2024	7	60	10.9		141		20		117		83		0		0		12	12	309	309	166.3	166.3
4/27/2024	8	60	10.8		141		24		129		82		0				13		309		167.8	
4/27/2024	9	60	10.9		140		22		126		83		0				13		309		167.9	
4/27/2024	10	60	11.0		141		22		126		83		0				13		309		167.3	
4/27/2024	11	60	11.0		142		21		123		83		0		0		13		309	309	166.8	167.5
4/27/2024	12	60	10.8		140		16		96		83		0				14		309		165.5	
4/27/2024	13	60	10.9		141		20		106		81		0				14		309		167.5	
4/27/2024	14	60	10.8		143		18		96		81		0				13		309		166.6	
4/27/2024	15	60	10.7		140		19		113		83		0		0		13	13	309	309	167.3	166.7
4/27/2024	16	60	10.6		143		16		94		83		0				13		309		167.7	
4/27/2024	17	60	10.6		141		18		96		81		0				13		309		168.5	
4/27/2024	18	60	10.7		139		20		99		80		0				13		309		167.6	
4/27/2024	19	60	10.8		140		19		97		80		0		0		13		309	309	167.5	167.8
4/27/2024	20	60	10.5		143		15		87		83		0				13		310		168.2	
4/27/2024	21	60	10.6		139		12		77		84		0				13		309		169.8	
4/27/2024	22	60	10.8		142		15		80		81		0				13		309		167.3	
4/27/2024	23	60	10.6		143		15		85		82		0		0		13	13	310	309	166.7	168.0

Average:	**141**			see above	see above	see above	see above
Geometric Mean Average:		**17**					
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

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

Wheelabrator TECHNOLOGIES

WASTE INNOVATIONS — PERFORMANCE FOR THE PLANET

Date 4/27/24

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 Out Vol % Dry	O2 Status	NOx Outlet ppm 7%O2	NOx Status	SO2 Outlet ppm 7%O2	SO2 Outlet Status	SO2 Inlet ppm 7%O2	SO2 Inlet Status	SO2 Removal	SO2 Removal Status	CO Outlet ppm 7%O2	CO Status	CO 4 Hr Block	CO 4 Hr Block Status	Carbon Feed Lbs/Hr Avg.	Carbon Feed 8 Hr Block	FF Temp (deg F) 1 Hr Avg.	FF Temp (deg F) 4 Hr Block	Steam KLbs/Hr 1 Hr Avg.	Steam KLbs/Hr 4 Hr Block
4/27/2024	0	60	10.5		140		0		35		100		6				14		310		167.8	
4/27/2024	1	60	10.4		140		2		46		95		6				14		310		168.0	
4/27/2024	2	60	10.5		139		2		45		95		6				14		310		167.4	
4/27/2024	3	60	10.3		140		2		42		96		6		6		14		310	310	168.0	167.8
4/27/2024	4	60	10.4		140		1		35		97		6				14		310		167.5	
4/27/2024	5	60	10.5		139		16		90		82		6				14		310		166.3	
4/27/2024	6	60	10.5		141		18		77		77		6				14		310		167.9	
4/27/2024	7	60	10.3		139		10		73		86		6		6		14	14	310	310	167.4	167.3
4/27/2024	8	60	10.4		139		11		77		86		5				14		310		167.9	
4/27/2024	9	60	10.4		138		10		76		87		4				14		310		168.1	
4/27/2024	10	60	10.5		142		9		73		88		3				14		310		167.1	
4/27/2024	11	60	10.5		137		5		66		93		5		4		14		309	310	165.1	167.0
4/27/2024	12	60	10.3		141		1		49		99		4				14		310		167.9	
4/27/2024	13	60	10.4		139		1		48		98		4				14		310		167.9	
4/27/2024	14	60	10.2		139		0		47		100		5				14		310		167.0	
4/27/2024	15	60	10.3		140		0		45		99		5		5		13	14	310	310	167.5	167.6
4/27/2024	16	60	9.9		140		0		45		100		5				14		310		167.5	
4/27/2024	17	60	10.0		140		0		42		100		4				13		310		167.1	
4/27/2024	18	60	10.0		138		1		49		98		4				13		310		168.0	
4/27/2024	19	60	10.1		139		3		54		95		4		4		13		310	310	167.9	167.6
4/27/2024	20	60	10.3		140		4		43		92		3				13		310		168.2	
4/27/2024	21	60	10.1		140		0		33		99		4				13		310		169.2	
4/27/2024	22	60	10.2		139		2		34		95		3				13		310		166.5	
4/27/2024	23	60	10.2		140		0		24		100		4		3		13	13	310	310	167.9	168.0

	NOx	SO2 Outlet		SO2 Removal	CO 4 Hr Block	Carbon Feed	FF Temp	Steam
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**

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WHEELABRATOR NORTH ANDOVER
A WIN-WASTE INNOVATIONS COMPANY
OPACITY REPORT

PERFORMANCE FOR THE PLANET

Date 27-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		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	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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OPACITY REPORT

Date 27-Apr-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		2		2	2	2	2	2	2	2	2	1
1	2		2		2	2	2	2	2	2	2	2	2
2	2		2		2	2	2	2	2	2	2	2	2
3	2		2		2	2	2	2	2	2	2	2	2
4	2		2		2	2	2	2	2	2	2	2	2
5	2		2		2	2	2	2	2	2	2	2	2
6	1	IC	6	IC	2	2	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	2	2	2	2	2
14	2		2		2	2	2	2	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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