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

PERFORMANCE FOR THE PLANET

Date 11/26/24

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
11/26/2024	0	60	11.5		126		10		62		83		0				17		309		168.5	
11/26/2024	1	60	11.5		127		5		51		90		1				17		309		162.5	
11/26/2024	2	60	11.6		138		10		48		80		2				18		310		162.7	
11/26/2024	3	60	11.7		141		7		40		82		0		1		12		309	309	161.2	163.7
11/26/2024	4	60	11.4		140		4		36		90		1				15		310		166.5	
11/26/2024	5	60	11.5		141		3		32		90		1				17		309		165.7	
11/26/2024	6	60	11.6		141		5		30		84		2				17		310		166.1	
11/26/2024	7	60	11.5		140		11		43		73		2		1		16	16	309	309	168.6	166.7
11/26/2024	8	60	11.5		142		14		58		75		3				15		309		168.8	
11/26/2024	9	60	11.8		139		14		52		73		2				16		309		164.0	
11/26/2024	10	60	11.2		141		7		50		86		7				14		310		167.9	
11/26/2024	11	60	11.5		143		8		48	IBM	84	IBM	2		3		16		309	309	166.5	166.8
11/26/2024	12	60	11.4		139		11		49	IBM	77	IBM	2				16		309		161.7	
11/26/2024	13	60	11.1		140		10		52		82		2				15		310		166.1	
11/26/2024	14	60	11.3		155		3		50		94		3				16		309		167.5	
11/26/2024	15	60	11.2		142		11		63		82		3		2		14	15	309	309	166.1	165.4
11/26/2024	16	60	11.2		140		11		47		77		2				13		309		165.5	
11/26/2024	17	60	11.1		140		3		35		91		3				13		310		167.4	
11/26/2024	18	60	11.6		141		7		44		85		2				16		308		164.5	
11/26/2024	19	60	11.3		141		13		47		72		2		2		17		310	309	165.9	165.8
11/26/2024	20	60	11.3		141		9		52		83		2				11		310		165.6	
11/26/2024	21	60	11.1		140		17		86		81		3				17		309		168.0	
11/26/2024	22	60	11.4		141		27		135		80		2				16		310		166.5	
11/26/2024	23	60	11.2		143		13		93		85		1		2		14	14	309	309	166.4	166.6
Average:					**140**										see above				see above	see above	see above	
Geometric Mean Average:							**8**				**84**											
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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PERFORMANCE FOR THE PLANET

Date 11/26/24

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		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
11/26/2024	0	60	10.7		128		4		83		95		3				15		310		166.9	
11/26/2024	1	60	10.6		128		1		51		99		3				15		310		168.0	
11/26/2024	2	60	10.4		137		3		58		95		3				15		310		167.0	
11/26/2024	3	60	10.5		143		0		51		100		3		3		16		310	310	167.2	167.3
11/26/2024	4	60	10.5		140		2		50		95		3				15		310		167.6	
11/26/2024	5	60	10.5		140		0		34		100		2				15		310		167.5	
11/26/2024	6	60	10.6		139		0		35		100		3				15		310		165.6	
11/26/2024	7	60	10.8		139		1		46		99		7		4		13	15	309	310	167.1	166.9
11/26/2024	8	60	10.6		136		1		57		99		3				13		310		167.3	
11/26/2024	9	60	10.7		138		11		93		88		2				11		309		166.8	
11/26/2024	10	59	10.3		142		10		87		88		3				13		310		167.1	
11/26/2024	11	60	10.6		136		7		70		90		3		3		13		309	310	162.4	165.9
11/26/2024	12	60	10.7		143		15		118		87		4				13		310		162.8	
11/26/2024	13	60	11.0		138		6		65		91		5				13		310		166.5	
11/26/2024	14	60	10.8		141		1		66		98		5				13		310		167.3	
11/26/2024	15	60	10.5		141		6		80		93		4		5		15	13	310	310	167.2	166.0
11/26/2024	16	60	10.5		137		2		61		96		3				13		310		167.4	
11/26/2024	17	60	10.4		141		0		54		100		3				13		310		167.8	
11/26/2024	18	60	10.3		139		1		62		99		3				13		310		167.8	
11/26/2024	19	60	10.5		141		0		53		100		3		3		12		310	310	166.9	167.5
11/26/2024	20	60	10.6		138		0		66		100		3				13		310		168.3	
11/26/2024	21	60	10.6		141		3		87		96		3				13		310		167.8	
11/26/2024	22	60	10.7		139		14		115		88		3				12		309		167.2	
11/26/2024	23	60	10.7		140		23		126		82		4		3		12	13	310	310	167.8	167.8

Average:	138					see above	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

Date 26-Nov-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	2	IC	5	IC	0	0	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

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OPACITY REPORT

Date 26-Nov-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	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	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 I	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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