



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



Date 7/14/23

Wheel Plant Wheelabrator North Andover
Unit 1 Unit 1
Outlet 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.
7/14/2023	0	60	9.6		130		3		49		95		16			12		309		166.7	
7/14/2023	1	60	10.0		136		1		39		97		5			12		310		165.3	
7/14/2023	2	60	9.8		131		0		35		100		5			13		309		166.6	
7/14/2023	3	60	9.7		130		0		39		100		4	7		13		310	309	163.4	165.5
7/14/2023	4	60	9.7		134		0		43		100		4			12		309		163.7	
7/14/2023	5	60	9.6		135		0		46		100		4			15		309		164.5	
7/14/2023	6	60	9.8		133		0		35		99		4			12		310		163.3	
7/14/2023	7	60	10.0		130		0		39		100		4	4		13	13	309	309	165.1	164.1
7/14/2023	8	60	9.7		126		1		70		98		4			12		309		168.1	
7/14/2023	9	60	9.8		134		8		89		91		4			13		310		168.4	
7/14/2023	10	60	10.2		138		10		87		88		4			13		309		166.8	
7/14/2023	11	60	9.9		144		0		57		100		4	4		13		310	310	168.6	168.0
7/14/2023	12	60	9.7		135		1		62		98		5			13		310		166.8	
7/14/2023	13	60	9.5		134		0		40		100		6			13		310		166.8	
7/14/2023	14	60	9.5		137		0		41		100		6			13		309		168.0	
7/14/2023	15	60	20.6	IBM	50	IBM	4	IBM	42		91	IBM	9	IBM	6	13	13	310	310	168.3	167.4
7/14/2023	16	60	12.3	IBCM	160	IBCM	13	IBCM	46		72	IBCM	15	IBCM		12		309		166.7	
7/14/2023	17	60	9.6		133		0		46		100		3			12		309		166.9	
7/14/2023	18	60	9.7		137		0		49		100		3			13		310		165.7	
7/14/2023	19	60	9.9		141		0		50		99		2	3		12		310	309	166.0	166.3
7/14/2023	20	60	9.7		137		0		47		99		2			13		310		168.4	
7/14/2023	21	60	9.6		140		0		53		99		2			13		309		167.4	
7/14/2023	22	60	9.8		133		4		71		94		2			12		309		166.5	
7/14/2023	23	60	9.6		125		0		54		100		2	2		13	12	309	309	165.5	167.0

Average: Geometric Mean Average:	134	0	OR	100	see above	see above	see above	see above			
Limit:	≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean		≥ 80% Removal Efficiency	≤ 69 4-HR Block Average	ppmc	≥ 12 8-HR. Block Average	lb/hr	≤ 345 °F 4-HR Block Average	≤ 173 4-HR Block Average	klb/hr

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 COMPLIANCE SUMMARY REPORT



Date 7/14/23

Wheel Plant Wheelabrator North Andover
Unit 2 Unit Unit 1
Outlet 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
7/14/2023	0	60	10.1		140		7		42		84		4			13		310		167.7		
7/14/2023	1	60	10.0		139		10		49		81		5			13		310		167.3		
7/14/2023	2	60	10.1		139		3		33		91		5			13		310		166.5		
7/14/2023	3	60	10.1		142		4		42		90		5	5		13		310	310	167.5	167.2	
7/14/2023	4	60	10.2		143		5		41		88		4			12		310		167.7		
7/14/2023	5	60	10.1		142		2		24		92		3			11		310		168.1		
7/14/2023	6	60	10.3		138		1		15		96		3			13		310		167.1		
7/14/2023	7	60	10.5		140		7		88		92		4	4		13	13	310	310	166.9	167.4	
7/14/2023	8	60	10.2		140		10		89		89		5			13		310		167.8		
7/14/2023	9	60	10.2		139		11		106		90		7			13		310		165.1		
7/14/2023	10	60	20.3	IBM	0	IBM	4	IBM	119	IBM	96	IBM	16	IBM		13		310		168.3		
7/14/2023	11	60	20.3	IBM	1	IBM	5	IBM	58	IBM	91	IBM	32	IBM	6		13		310	310	167.5	167.2
7/14/2023	12	60	20.6	IBM	20	IBM	7	IBM	67	IBM	89	IBM	39	IBM		12		310		167.1		
7/14/2023	13	60	11.1		141		1		46		98		8			13		310		161.5		
7/14/2023	14	60	9.6		144		0		56		100		3			12		311		166.1		
7/14/2023	15	60	9.7		140		0		45		100		3	5		13	13	310	310	166.8	165.4	
7/14/2023	16	60	10.0		139		0		50		100		3			13		310		167.3		
7/14/2023	17	60	9.8		140		0		58		100		2			12		310		167.9		
7/14/2023	18	60	9.9		140		0		51		100		2			13		310		167.4		
7/14/2023	19	60	9.8		137		0		46		100		2	2		13		310	310	166.1	167.2	
7/14/2023	20	60	9.7		140		0		49		100		2			13		310		166.7		
7/14/2023	21	60	9.8		142		0		62		100		1			13		310		168.2		
7/14/2023	22	60	10.0		139		0		74		100		1			13		310		166.7		
7/14/2023	23	60	10.0		139		0		62		99		1	1		13	13	310	310	167.4	167.3	

Average:
Geometric Mean Average:

Limit:

140	1
≤ 150 24-HR Block Avg.	≤ 29 24-HR Geometric Mean

OR

99
≥ 80% Removal Efficiency

see above
≤ 69 4-HR Block Average

ppmc

see above
≥ 12 8-HR. Block Average

lb/hr

see above
≤ 345 °F 4-HR Block Average

°F

see above
≤ 173 4-HR Block Average

klb/hr

Status Flags

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WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 14-Jul-2023

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	3	IC	4	IC	0	0	0	0	0	0	1
7	0		0		0	0	0	0	0	0	0
8	0		0		0	0	0	0	0	0	0
9	0		0	IM	0	IM	0	IM	0	0	0
10	0		0		0		0		0	0	0
11	0		0		0		0		0	0	0
12	0		0		0		0		0	0	0
13	0		0		0		0		0	0	0
14	0		0		0		0		0	0	0
15	0		0		0		0		0	0	0
16	0		0		0		0		0	0	0
17	0		0		0		0		0	0	0
18	0		0		0		0		0	0	0
19	0		0		0		0		0	0	0
20	0		0		0		0		0	0	0
21	0		0		0		0		0	0	0
22	0		0		0		0		0	0	0
23	0		0		0		0		0	0	0

Status Flags

I - Invalid C - Calibration F - Offline T - Out of Control ^ - Startup
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown



WHEELABRATOR NORTH ANDOVER A WIN-WASTE INNOVATIONS COMPANY OPACITY REPORT



Date 14-Jul-2023

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	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	IBC	4	IBC	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	IM	0	IM	0	IM	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

Status Flags

I - Invalid C - Calibration F - Offline T - Out of Control ^ - Startup
 B - Bad M - Maintenance P - Purge E - Excluded * - Shutdown