

# MACT Facts: Existing Units

## Maximum Achievable Control Technology



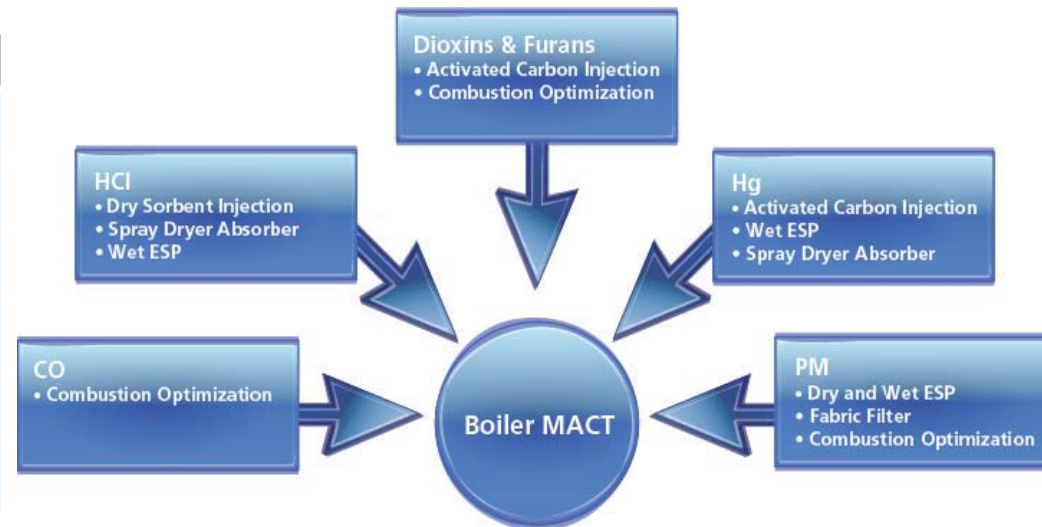
### Emission Limits for Existing Solid Fueled Boilers & Process Heaters

Subcategory	PM (lb/MMBtu)	HCl (lb/MMBtu)	Hg (lb/MMBtu)	CO (ppm@3% O2)	D/F (Total TEQ) (ng/dscm@7% O2)
Coal Stoker	0.039	0.035	4.6E-06	270	0.003
Coal Fluid Bed	0.039	0.035	4.6E-06	82	0.002
Pulverized Coal	0.039	0.035	4.6E-06	160	0.004
Biomass Stoker	0.039	0.035	4.6E-06	490	0.005
Biomass Fluid Bed	0.039	0.035	4.6E-06	430	0.02
Biomass Dutch Oven	0.039	0.035	4.6E-06	470	0.2
Biomass Fuel Cell	0.039	0.035	4.6E-06	690	4.0
Biomass Suspension/Grate	0.039	0.035	4.6E-06	3,500	0.2

**CBPG** is a single source solution provider for **ALL FIVE MACT HAPs**. Put the **Power of the Group** to work for you to develop a **customized solution** for your facility's Boiler MACT compliance needs.

### Boiler & Process Heater Categorization

Fuel fired on annual heat input basis			Emissions Category
>10% Solid	and	>10% biomass	Biomass fuel and boiler design subcategory
>10% Solid	and	>10% coal AND <10% biomass	Coal fuel and boiler design subcategory
>10% Liquid	and	<10% coal AND <10% biomass AND in continental U.S.	Liquid fuel continental
>10% Liquid	and	<10% coal AND <10% biomass AND not in continental U.S.	Liquid fuel non-continental
>10% Gas	and	Does not qualify as Gas 1	Gas 2 emissions limit category
>10% Gas	and	NG, RG, or qualify as Gas 1	Annual tune up (no emissions category)



Source: 40 CFR Part 63, Boiler MACT for Major Sources, dated March 21, 2011.  
Data provided is for information purposes only. The final rule shall be the governing authority.

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### Continuous Compliance Requirements

Heat Input MMBtu/Hr	Fuels	HAP	Emissions Control Device/Method	Monitoring	Limit	Time Period
<250	Coal, Biomass, #4, 5, 6 Oil	PM	w/o Wet Scrubber	Opacity	≤10%	Daily avg.
<250	Coal, Biomass, #4, 5, 6 Oil	PM	Fabric Filter	Bag Leak Detector	≤5% of oper. time in alarm	6 month rolling (alt. PM CEMS)
≥ 250	Coal, Biomass, #4, 5, 6 Oil	PM	All	PM CEMS	See limits	Monthly avg.
≥ 10	All, except Gas 1	PM	Wet Scrubber	ΔP and liquid flow rate	≥ process limit	12 hr. block avg.
≥ 10	All, except Gas 1	HCl	Wet Scrubber	pH and liquid flow rate	≥ process limit	12 hr. block avg.
≥ 10	All, except Gas 1	HCl, Hg, D/F	Dry Scrubber	Sorbent injection rate and boiler load	≥ process limit AND ≥ fraction based on percent load	12 hr. block avg.
<250	All, except Gas 1	PM and Hg	ESP	Total secondary power	≥ process limit	12 hr. block avg.
≥10	All, except Gas 1	HCl and Hg	Fuel Analysis	HCl and Hg content	≤ process limit, no new fuels w/o analysis	Monthly (alt to APC controls)
≥10	All, except Gas 1	CO	Oxygen Monitor	O2	≥ process limit	12 hr. block avg.

### Compliance Testing

HAP	Initial and Annual Compliance Test Method
PM	EPA Method 5 or 17
HCl	EPA Method 26A or 26
Hg	EPA Method 29, or ASTM-D6784-02
CO	EPA Method 10
D/F	EPA Method 23

#### Notes:

- 1) Operating load data must be maintained as an integral part of the compliance program.
- 2) Fuel analysis and records must be maintained as an integral part of the compliance program.
- 3) Units cannot operate >110% of load used to establish compliance operating limits.
- 4) Limited use unit is defined as operating < 876 hours/yr. (< 36.5 days/yr.)

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**Single Source MACT Solution**  
**Single Source MACT Guarantee**  
**Clyde Bergemann Power Group**