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What are the current standards for hazardous waste combustors?

The current standards for new and existing hazardous waste combustors are found in the following tables. A new hazardous waste combustor is defined as a source that started construction or reconstruction after April 20, 2004. All other sources are considered to be existing sources. Each table will have the Code of Federal Regulations (CFR) citation for those standards. For the following tables, SVM means semi-volatile metals (lead and cadmium) and LVM means low-volatile metals (arsenic, beryllium, and chromium). Each combustor can meet either a carbon monoxide (CO) or a total hydrocarbon standard (THC). For the dioxin standards designated with \*\*, there were not enough data on which to develop numerical standards. The 2005 rule requires that these facilities do a one-time test for dioxin emissions during their initial performance test. EPA has indicated they will use the results from that testing in future rulemaking.

Solid fuel-fired boilers (40 CFR 63.1216)

<u>Pollutant</u>	<u>New</u>	<u>Existing</u>
Dioxin (ng TEQ/dscm)	**	**
Mercury (µg/dscm)	11	11
SVM (µg/dscm)	180	180
LVM (µg/dscm)	190	380
CO/THC (ppmv)	100/10	100/10
Total chlorine (ppmv)	73	440
Particulate matter (mg/dscm)	34	68

Liquid fuel-fired boilers (40 CFR 63.1217). This subcategory is further divided into a high Btu sub-subcategory and a low Btu sub-subcategory. The low Btu sub-subcategory is defined as firing a fuel with less than 10,000 Btu/lb and have standards normalized to stack gas concentrations (µg/dscm). The high Btu sub-subcategory units are defined as firing a fuel 10,000 Btu/lb or greater and have standards normalized to the Btus of the fuel (lb/MM Btu).

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High-Btu sub-subcategory

<u>Pollutant</u>	<u>New</u>	<u>Existing</u>
Dioxin (ng TEQ/dscm)	0.40*	0.40*
Mercury (lb/MM Btu)	1.2 X 10 <sup>-6</sup>	4.2 X 10 <sup>-5</sup>
SVM (lb/MM Btu)	6.2 X 10 <sup>-6</sup>	8.2 X 10 <sup>-5</sup>
LVM (lb/MM Btu)	1.4 X 10 <sup>-5</sup>	1.3 X 10 <sup>-4</sup>
CO/THC (ppmv)	100/10	100/10
Total chlorine (lb/MM Btu)	5.08 X 10 <sup>-2</sup>	5.08 X 10 <sup>-2</sup>
Particulate matter (mg/dscm)	34	80

\* For dry air pollution control systems, for wet air pollution control systems, the one-time test only.

Low Btu sub-subcategory

<u>Pollutant</u>	<u>New</u>	<u>Existing</u>
Dioxin (ng TEQ/dscm)	0.40*	0.40*
Mercury (µg/dscm)	6.8	19
SVM (µg/dscm)	78	150
LVM (µg/dscm)	12	370
CO/THC (ppmv)	100/10	100/10
Total chlorine (ppmv) low Btu	31	31
Particulate matter (mg/dscm)	34	80

\* For dry air pollution control systems, for wet air pollution control systems, the one-time test only.

Hydrochloric acid production furnaces (40 CFR 63.1218)

<u>Pollutant</u>	<u>New</u>	<u>Existing</u>
Dioxin (ng TEQ/dscm)	**	**
CO/THC (ppmv)	100/10	100/10
Total chlorine (ppmv/SRE*)	25/99.987	150/99.923

\* SRE is system removal efficiency. An SRE of 99.987 means that the air pollution control system has removed 99.987% of the chlorine fed to the unit.

Hazardous waste incinerators (40 CFR 63.1219)

<u>Pollutant</u>	<u>New</u>	<u>Existing</u>
Dioxin (ng TEQ/dscm) dry APCD	0.11	0.20
wet APCD	0.20	0.40
Mercury (µg/dscm)	8.1	130
SVM (µg/dscm)	10	230
LVM (µg/dscm)	23	92
CO/THC (ppmv)	100/10	100/10
Total chlorine (ppmv)	21	32
Particulate matter (gr/dscf)	0.0015	0.013

Hazardous waste cement kilns (40 CFR 63.1220). For this subcategory, both the feed standards and the stack gas concentration standards for mercury, SVM, and LVM apply. This is an “and” standard, not an “or” standard.

<u>Pollutant</u>	<u>New</u>	<u>Existing</u>
Dioxin (ng TEQ/dscm)	0.20	0.20
	0.040*	0.40*
Mercury (µg/dscm)	120	120
(ppmw feed)	1.9	3
SVM (µg/dscm)	180	330
(lb/MM Btu feed)	$6.2 \times 10^{-5}$	$7.6 \times 10^{-4}$
LVM (µg/dscm)	54	56
(lb/MM Btu feed)	$1.5 \times 10^{-5}$	$2.1 \times 10^{-5}$
CO/THC (ppmv)	100/10	100/20
Total chlorine (ppmv)	86	120
Particulate matter (gr/dscf)	0.0023	0.028

\* provided that the temperature to the air pollution control device is less than 400 °F

CRWI  
HWC MACT standards

Hazardous waste lightweight aggregate kilns (40 CFR 63.1221). For this subcategory, both the feed standards and the stack gas concentration standards for SVM and LVM apply. This is an “and” standard, not an “or” standard.

<u>Pollutant</u>	<u>New</u>	<u>Existing</u>
Dioxin (ng TEQ/dscm)	0.20*	0.20*
Mercury (µg/dscm)	120	120
SVM (µg/dscm)	43	250
(lb/mm Btu feed)	$3.7 \times 10^{-5}$	$3.0 \times 10^{-4}$
LVM (µg/dscm)	110	110
(lb/mm Btu feed)	$3.3 \times 10^{-5}$	$9.5 \times 10^{-5}$
CO/THC (ppmv)	100/20	100/20
Total chlorine (ppmv)	600	600
Particulate matter (gr/dscf)	0.0098	0.025

\* or rapid quench (no numerical standard)