

Stack emissions monitoring

Note: This relates to emissions from point sources, not ambient air monitoring.

Parameter monitored	Standard methodology used	Emission point	Detection limit	Is this company accredited for this test?
Total dust	EN 13284-1 part 1:2002	a, b	0.3 mg/m ³	No
Hydrogen chloride (HCl)	EN 1911, part 1, 2, 3: 1998	a, b	0.2 mg/m ³	No
Hydrogen Flouride (HF)	VDI 2470, part 1:1975	a, b	0.2 mg/m ³	No
Sulphur dioxide (SO ₂)	EN 14791: 2006	a, b	0.1 mg/m ³	No
Nitrogen oxides – expressed as NO ₂	EN 14792:2006	a, b	1% of the range	No
Carbon monoxide (CO)	EN 15058:2006	a, b	1% of the range	No
Gaseous and vaporous organic substances expressed as TOC	EN 12619: 1999	a, b	1% of the range	No
Cadmium (Cd) und Thallium (Tl)	EN 14385:2004	a, b	1 µg/m ³ for each element (depending on the matrix)	No
Heavy metals: Sb, As, Pb, Cr, Co, Cu, Mn, Ni, V	EN 14385:2004	a, b	1 to 5 µg/m ³ for each element (depending on the matrix)	No
Mercury (Hg)	EN 13211: 2001	a, b	1 µg/m ³	No
Dioxins/ Furans	EN 1948, part 1, 2, 3: 2006	a, b	0.001 to 0.005 ng/m ³ for the TE-value. Depending of the matrix	No
Ammonia as NH ₃	VDI 3496, part 1:1982	a, b	0.2 mg/m ³	No
Hydrogen sulphide (H ₂ S)	VDI 3486, part 2: 1979	a, b	0.4 mg/m ³	No
PM10, PM 2.5	VDI 2066, part 10 : 2004/ EN ISO 23210, part 1: 2007, draft	a, b	1 mg/m ³ . Depends of the characteristics of the flue gas	No
Specific gaseous organic compounds	EN 13649: 2002	a, b	Typically 0.1 mg/m ³	No

^a This parameter can be measured (sampling and analysis) in the flue gas that is emitted to the atmosphere to check for compliance with limit values

^b This parameter can be measured at higher concentrations before the flue gas cleaning system under the conditions of higher temperatures and wet flue gases: after boiler, before and after scrubber, before and after filter.

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Nitrous oxide (N ₂ O)	VDI 2469, part 1	a, b	5 ppm	No
Carbon dioxide (CO ₂)	ISO 12039: 2001	a, b	1% relative the of range	No
Odour measurements	EN 13725 : 2003	a, b	400 units/m ³	No
Verification of the minimum combustion requirements of the EU guideline on the incineration of waste	German Guideline BMU, annex E	-	-	No
Calibration, function tests of continuous emission measuring systems (AMS)	EN 14181	-	-	No
Oxygen content (O ₂)	EN 14789: 2006	a, b	0.2%	No
Water vapour content	EN 14790: 2006	a, b	5 g/m ³	No
Volume flow rate, flue gas velocity	ISO 10780:1994	a, b	Velocity: 5 m/s	No
Flue-gas temperature	EN 13284-1 part 1:2002	a, b	-	No
Flue-gas pressure	EN 13284-1 part 1:2002	a, b	-	No
Atmospheric pressure	EN 13284-1 part 1:2002	-	-	No
General requirements on emission measurements	EN 15259 :2008	a, b	-	No