

Emission limit values: Cement industry in EU and USA

The present document contains information about emission limit values for cement industry in the EU and the USA.

Please note that a companion document in the current database [Emissions from stationary sources: Regulations](#) provides an overview of regulations in the EU and USA for stationary sources in general.

Further note that there are two companion documents that provide comparative tables with emission limit values for cement industry in the EU as reported by the member states:

- [Emission limit values: Comparative tables for cement industry, existing installations in the EU](#)
- [Emission limit values: Comparative tables for cement industry, new or substantially changed installations in the EU](#)

The emission limit values in those documents are meant to be representative values of permits issued in the Member States. Ideally, they should represent the limit value for the median installation in a given category.

It is not possible to produce comparative tables with emission limit values where EU is compared to US, because emission limit values are defined in different ways. In the EU, values are defined in terms of **mg/Nm³**, whereas in the USA values are expressed as **kg per ton of feed** (dry basis) to the kiln, and are set only for particulate matter. In the USA, there are also limit values concerning opacity.

More detailed information is as follows:

EU

In the **EU**, according to the IPPC Directive (96/61/EC), cement industry must take into account a BAT Reference Document on best available techniques in the cement and lime industries. For the particular case of *cement kilns co-incinerating waste*, there are special provisions in directive 2000/76/EC on incineration of waste.

The BAT Reference document from 2001 includes (as Annex A) overview of current legislation (emission limit values) in various countries in the EU. In general, emission limits for the cement industry are related to the three main pollutants NO_x, SO₂ and dust. Some countries have additional limits for metals, HCl, HF, organic compounds and PCDD/Fs. Newer information is available in the above mentioned companion documents.

The BAT reference document can be retrieved from the European Integrated Pollution Prevention and Control Bureau, <http://eippcb.jrc.es/>

The specific URL to the *Reference Document on best available techniques in the cement and lime industries* is ftp://ftp.jrc.es/pub/eippcb/doc/clp_bref_1201.pdf

The above mentioned EU directives can be accessed through the page <http://europa.eu.int/comm/environment/air/legis.htm>

USA

For the **USA**, regulations concerning cement industry are given in Title 40 (Protection of Environment), Part 60 (Standards of Performance for New Stationary Sources) in Subpart F -- *Standards of Performance for Portland Cement Plants*.

Emission limit values refer to particulate matter (§60.62) and are given as:

For kilns:

- (1) 0.15 kg per metric ton of feed (dry basis) to the kiln.
- (2) Gases may not exhibit greater than 20 percent opacity.

For clinkers:

- (1) 0.050 kg per metric ton of feed (dry basis) to the kiln.
- (2) Gases may not exhibit 10 percent opacity, or greater.

In order to access this standard, use the link below and select the paragraph you look for. The link is to a page with a long list of all paragraphs within Title 40 (Protection of Environment), Part 60 (Standards of Performance for New Stationary Sources):

http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=474f779beade290997e4611971d078f4&tpl=/ecfrbrowse/Title40/40cfr60_main_02.tpl