

Emission limit values: Chemical industry in EU and USA

The present document contains information about emission limit values for chemical 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 chemical industry in the EU as reported by the member states:

- [Emission limit values: Comparative tables for basic chemicals, existing installations in the EU](#)
- [Emission limit values: Comparative tables for basic chemicals, 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.

EU

For the EU, emissions from industrial sources are regulated in a number of directives which can be accessed through the page <http://europa.eu.int/comm/environment/air/legis.htm>

Prominent among these is the IPPC Directive (96/61/EC) on ..

The IPPC Directive to a large extent works through a mechanism with BAT Reference Documents available from the European Integrated Pollution Prevention and Control Bureau. An overview of all BAT Reference Documents is given on the page

<http://eippcb.jrc.es/pages/FActivities.htm>

Further, the "VOC Directive" (1999/13/EC) *on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations*. Annex I of the Directive specifies emission limit values for VOC for a range of industrial activities, such as printing, surface cleaning, various types of coating, rubber conversion etc.

A direct link to the VOC Directive and various corrigenda is

http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=en&type_doc=Directive&an_doc=1999&nu_doc=13

Except for VOC's, many standards concerning chemical industry in the EU is defined at a national level rather than a Community level.

Also take account that there are a number of BAT reference documents.

The list below shows all of the documents listed on that page as of September 1, 2004. By this date, 15 of the documents mentioned below have been formally adopted while the remaining are in various stages of progress.

BAT Reference Documents completed or underway as of September 1, 2004.

- Pulp and Paper manufacture
- Iron and Steel production
- Cement and Lime production
- Cooling Systems
- Chlor-Alkali manufacture
- Ferrous Metal processing
- Non-Ferrous Metal processes
- Glass manufacture
- Tanning of hides and skins
- Textile processing
- Monitoring systems
- Refineries
- Large Volume Organic Chemicals
- Smitheries and Foundries
- Intensive Livestock Farming
- Emissions from storage of bulk or dangerous materials
- Common waste water and waste gas treatment and management systems in the chemical sector
- Economic and cross media issues under IPPC
- Large Combustion Plant
- Large Volume Inorganic Chemicals - Ammonia, Acids & Fertilisers
- Large Volume Inorganic Chemicals - Solid & Others
- Slaughterhouses and Animal By-products
- Food, Drink and Milk processes
- Ceramics
- Management of Tailings and Waste-Rock in Mining Activities
- Surface treatment of metals
- Surface treatments using solvents
- Waste Incineration

Waste Treatments
Speciality inorganic chemicals
Organic fine chemicals
Polymers

USA

For the **USA**, many regulations concerning chemical industry are given in Title 40 (Protection of Environment), Part 60 (Standards of Performance for New Stationary Sources). This set of regulations are often referred to as NSPS (New Source Performance Standards).

NSPS provide standards concerning a very long list of specific types of industry.

The list from NSPS is reproduced below, so far as concerns chemical industry. This list includes most of the standards in NSPS; however, standards for combustion plants, cement industry and waste incineration have been excluded from the list.

Further to the NSPS there are other regulations in the USA. See the companion document in the database, entitled [Emissions from stationary sources: Regulations](#).

US standards concerning chemical industry, set as part of NSPS:

- Subpart Cd--Emissions Guidelines and Compliance Times for Sulfuric Acid Production Units
- Subpart G--Standards of Performance for Nitric Acid Plants
- Subpart H--Standards of Performance for Sulfuric Acid Plants
- Subpart I--Standards of Performance for Hot Mix Asphalt Facilities
- Subpart J--Standards of Performance for Petroleum Refineries
- Subpart K--Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978
- Subpart Ka--Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984
- Subpart Kb--Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
- Subpart L--Standards of Performance for Secondary Lead Smelters
- Subpart M--Standards of Performance for Secondary Brass and Bronze Production Plants
- Subpart N--Standards of Performance for Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973
- Subpart Na--Standards of Performance for Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983
- Subpart O--Standards of Performance for Sewage Treatment Plants
- Subpart P--Standards of Performance for Primary Copper Smelters
- Subpart Q--Standards of Performance for Primary Zinc Smelters
- Subpart R--Standards of Performance for Primary Lead Smelters
- Subpart S--Standards of Performance for Primary Aluminum Reduction Plants
- Subpart T--Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants
- Subpart U--Standards of Performance for the Phosphate Fertilizer Industry: Superphosphoric Acid Plants
- Subpart V--Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants
- Subpart W--Standards of Performance for the Phosphate Fertilizer Industry: Triple Superphosphate Plants
- Subpart X--Standards of Performance for the Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities
- Subpart Y--Standards of Performance for Coal Preparation Plants
- Subpart Z--Standards of Performance for Ferroalloy Production Facilities
- Subpart AA--Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and On or Before August 17, 1983
- Subpart AAa--Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983
- Subpart BB--Standards of Performance for Kraft Pulp Mills
- Subpart CC--Standards of Performance for Glass Manufacturing Plants
- Subpart DD--Standards of Performance for Grain Elevators
- Subpart EE--Standards of Performance for Surface Coating of Metal Furniture
- Subpart KK--Standards of Performance for Lead-Acid Battery Manufacturing Plants
- Subpart LL--Standards of Performance for Metallic Mineral Processing Plants
- Subpart MM--Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations
- Subpart NN--Standards of Performance for Phosphate Rock Plants
- Subpart PP--Standards of Performance for Ammonium Sulfate Manufacture
- Subpart QQ--Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing
- Subpart RR--Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations
- Subpart SS--Standards of Performance for Industrial Surface Coating: Large Appliances
- Subpart TT--Standards of Performance for Metal Coil Surface Coating
- Subpart UU--Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture
- Subpart VV--Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
- Subpart WW--Standards of Performance for the Beverage Can Surface Coating Industry
- Subpart XX--Standards of Performance for Bulk Gasoline Terminals
- Subpart BBB--Standards of Performance for the Rubber Tire Manufacturing Industry
- Subpart DDD--Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry

Subpart FFF--Standards of Performance for Flexible Vinyl and Urethane Coating and Printing
Subpart GGG--Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
Subpart HHH--Standards of Performance for Synthetic Fiber Production Facilities
Subpart III--Standards of Performance for Volatile Organic Compound (VOC) Emissions From the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes
Subpart JJJ--Standards of Performance for Petroleum Dry Cleaners
Subpart KKK--Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants.
Subpart LLL--Standards of Performance for Onshore Natural Gas Processing: SO Emissions
Subpart NNN--Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations
Subpart OOO--Standards of Performance for Nonmetallic Mineral Processing Plants
Subpart PPP--Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants
Subpart QQQ--Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
Subpart RRR--Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes
Subpart SSS--Standards of Performance for Magnetic Tape Coating Facilities
Subpart TTT--Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines
Subpart UUU--Standards of Performance for Calciners and Dryers in Mineral Industries
Subpart VVV--Standards of Performance for Polymeric Coating of Supporting Substrates Facilities

In order to access any of these standards, use the link below and select the subpart you are looking. 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