

ABSTRACT

The Centre for Best Available Techniques (BAT) is founded by the Flemish Government, and is hosted by Vito. The BAT centre collects, evaluates and distributes information on environment friendly techniques. Moreover, it advises the Flemish authorities on how to translate this information into its environmental policy. Central in this translation is the concept "BAT" (Best Available Techniques). BAT corresponds to the techniques with the best environmental performance that can be introduced at a reasonable cost.

BAT selection was brought about on the basis of, among other things, a literature survey, a technical and socio-economic study, plant visits and discussions with industry experts, representatives of the federation, suppliers and specialists from (semi) public institutes. The formal consultation was organised by means of an advisory committee.

The metalworking industry consists of companies which produce metal and electro-technical products. The production, first conversion, pouring and electrolytical and chemical treatment of metals is not considered in this document. The industry encloses a wide range of products, processes and technologies. Those processes and techniques are used in various combinations in both small and big companies.

The most important environmental effects are the emissions of particulate matter originating from mechanical metalworking and the emissions of volatile organic substances from adhesives and coating processes.

The selected BAT consist of a number of measures that improve the environmental performance of the metal working industry without putting an unreasonable financial burden on the companies involved. Although a large spectrum of pollution prevention methods are described in the text, selection of techniques that are technically and economically feasible in all companies is difficult. Nevertheless general BAT lines can be drawn.

BAT is to reduce the emissions of particulates by using fabric filter. On the basis of this BAT it is suggested to change the sectoral emission limit value in the Flemish permit regulation on 10 mg/Nm³. In some cases a derivation to 50 mg/Nm³ can be accepted. In order to reduce the emissions of volatile organic carbons, companies are stimulated to use solvent-poor systems for coating metals or for applying adhesives. BAT for thermal paint stripping is to treat gaseous emissions using an afterburner.