

ABSTRACT

The Centre for Best Available Techniques (BAT) has been founded by the Flemish Government and is hosted by Vito, the Flemish Institute for Technological Research. The BAT centre collects, evaluates and distributes information on techniques that minimise the impact on the environment as a whole. 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.

The aim of this study is to identify BAT for the recycling of construction and demolition waste (CDW). On the basis of the techniques selected as Best Available Techniques, recommendations are formulated with respect to the environmental permit legislation and the eco-investment support policy.

The study focusses on installations that recycle the stony fraction of construction and demolition waste. The industry consists of sorting plants and crushing installations. A sorting plant performs the following processes: pre-sorting to remove undesired material, size separation and final removal of remaining impurities. The processes applied by crushing plants are: the acceptance and storage of the waste, the crushing operation and the storage of the granular material.

The major environmental impacts associated with these activities are the emission of dust and noise. Waste, water, soil pollution and energy consumption are of minor importance. In order to minimise the environmental impact of the recycling of stony CDW 39 environmental friendly techniques are suggested in this study. After evaluation, 34 are selected as BAT. 12 of these are to be taken into consideration in case of local dust or noise nuisance.

BAT for the reduction of dust emissions are e.g. the construction and maintenance of roads on the site, a number of good practice measures for storage and shipping and the enclosure of transfer points. In the event of noise nuisance BAT is to apply one or more measures such as: the location of storage yards along the border of the site, the construction of a baffle board, the enclosure of the sources or the installation of silencers. BAT for reducing other environmental impacts of the recycling of stony CDW are also selected.

The BAT selection in this study was based on a preparatory study by the Belgian Building Research Institute (BBRI/WTCB). The preparatory study involved a literature survey, a technical and socio-economic study of the industry, cost calculations, plant visits and discussions with industry experts, representatives of the federations, suppliers and authorities. The formal consultation was organized by means of an advisory committee, the composition of which is given in Annex 1.