

عنوان مقاله:

Study on the Application of biofilteracion method for Offgas Treatment in a Special Foundry

محل انتشار:

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خلاصه مقاله:

A foundry in Sweden emits offgas containing VOCs (especially ethanol). In order to reduce the VOC content, a compost based biofilter has been installed . In this approach, the polluted air stream enters a pre-conditioning chamber where temperature and humidity is adjusted. Biofiltration has already been well established as an air pollutant control alternative. There are some physical, chemical and biological parameters which influence biofilter performance such as: filter media , oxygen availability , moisture content , pH and etc. The observations have shown that may be there are still some VOCs in offgas which are not degraded by biofiltration. Therefore biofiltration may not be a suitable choice for treating the offgas of the certain foundry. In considered situation, it may be necessary to substitute biofiltration by another technology which can remove VOCs and odoriferous compounds completely. Different factors may affect the decision on application of these technologies, and also the effectiveness and cost of these technologies: VOC concentration, VOC species, and presence of halogenated VOCs, presence of catalyst .poisons, particulate loading, moisture content, gas flow rate, and ambient temperature

کلمات کلیدی:

Offgas Treatment , Biofiltration , VOC , foundry , Biomass

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