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OPTIMIZING THE OPERATIONAL PARAMETERS OF AN INSTALLATION FOR THERMAL DESORPTION TO DIMINISH GAS EMISSIONS

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Abstract

This paper presents the results of a scientific study on industrial emissions based on requirements of the European Directive 2010/75/EU and Law 278/2013 referring to the minimization of greenhouse gas emissions into the environment. In this context, our study was focused on the decrease (in terms of environmental protection) of gas emissions generated by an installation for thermal desorption belonging to a commercial agent by adjusting its tunings after performing emission measurements. The installation for thermal desorption where gas emissions measurements were taken is intended for burning contaminated soil from a former industrial area for its remediation and use in road construction.

During 2015, monthly measurements were performed at this installation and results regarding gas concentrations significantly exceeded the limit established by the national legislation. Thus, in agreement with the commercial agent, the operating parameters of the installation were adjusted and energy efficiency was improved, contributing to a decrease of both production costs and environmental impact. In this respect, the paper presents theoretical and technical problems of the installation for users information as well as its adjustment method during gas emission measurements, so that to operate within standard parameters, and with emissions falling within legal maximum established values, thereby avoiding environmental pollution.

Key words: environment, impact, gas emissions, pollution, thermal desorption technology

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