

LIFE-CYCLE MANAGEMENT

Abstracts

THE EFFECT ON THE GHG EMISSIONS FROM THE EU LEGISLATION TARGETS ON MUNICIPAL SOLID WASTE MANAGEMENT PRACTICES

S. Xara^{1,2}, M. Almeida¹, M. Silva², C. Costa¹

¹ LEPAE - Laboratorio de Engenharia de Processos, Ambiente e Energia
Faculdade de Engenharia da Universidade do Porto, Portugal

² Escola Superior de Biotecnologia, Universidade Catolica Portuguesa, Portugal

This paper presents a case study developed for a region similar to Porto (Portugal), which objective was to evaluate the influence of the European legislation on municipal solid waste management practices in the greenhouse gas emissions.

Two situations were compared: the first one concerns to the situation on 1990 in which the MSW was collected, composted and residual waste was landfilled. On the second situation the EU legislation on recycling targets for packaging material and diversion of organic waste from landfills and the inclusion of a mass-burn incineration plant on the management system were taken into account. Greenhouse gas emissions from these two situations were calculated based on a model developed by White et al (1992). Weighting factors for the different gases according to the recommendations of the Intergovernmental Panel on Climate Change were used to aggregate the values calculated from emissions and obtain a simple and comparable result for each situation.