

VARIATION OF LANDFILL GAS PRODUCTION ACCORDING TO THE WASTE COMPOSITION

T.C. KOLIOPOULOS¹, G. FLEMING², A. SKORDILIS³

¹ Centre for Env. Mngment Research, Dept. of Civil Engineering, University of Strathclyde, Glaskgow G4 ONG, UK.

²EnviroCentre Ltd. / Centre for Env.Mngmnt Research, Dept. of Civil Engineering, University of Strathclyde, Glaskow G4 ONG, UK.

³University of the Aegean, Department of Env. Studies, 81 100 Mytilene, Greece.

ABSTRACT

The global oil crisis, during the last years, has obliged science and technology to be focused on the exploitation of renewable energy resources. This paper presents the biogas production of four characteristics landfill sites, two in the UK and two in Greece, as case studies. The purpose of the research is to evaluate and analyze the biogas emissions, as a result of different disposed waste composition and solid waste management-treatment. Evaluation and comparison is made of the produced landfill gas, based on the biodegradable fractions using stoichiometric equations. Consequently useful conclusions are presented.