

MONITORING EMISÍI ZNEČISŤUJÚCICH LÁTOK VZNIKAJÚCICH V PROCESE ZVÁRANIA

Vladimír LALÍK, Miroslav VANEK, Katarína FARBIAKOVÁ & Marián SCHWARZ

Katedra environmentálneho inžinierstva, Fakulta ekológie a environmentalistiky, Technická univerzita vo Zvolene, T. G. Masaryka 24, 960 53 Zvolen, Slovenská republika

E-mail: vladimir.lalik@gmail.com, vanek.miroslav@gmail.com, schwarz@vsld.tuzvo.sk katarina.gasparova@gmail.com

ABSTRACT

Lalík V., Vanek M., Farbiaková K., Schwarz M.: **Emission monitoring of Contaminating Substances from welding Process**

In order to operate the technology source of pollution, it must comply with certain requirements from applicable law. Such requirements are pollutant concentration limits (emission limits) in the effluent gas before the release to the atmosphere. In the evaluation of the requirements on the air quality, the influence on the human health and ecosystems is taken into account. Regulation of Ministry of environment SR no. 705/2002 Z. z defines the obligation to evaluate certain pollutants in the ambient air. It is usually done by monitoring – practical measurement or modeling calculations. This paper provides results from analysis of heavy metals concentration in aerosol emissions that are ventilated from the welding workplace by the air conditioning and subsequently released to the atmosphere. Evaluation was performed by the MODIM program for evaluation of pollutant dispersion in the air. The aim of evaluation is, based on the theoretical pollutant concentrations results, to determine if the proposed stack heights are sufficient to assure, that the concentration limits defined by the law are met.

Key words: pollutants, welding, aerosol, nickel, dispersion