

Human health impact evaluation of Cu, Zn, As and Pb concentration values in soils and sediments

V.Valkovic^{1,2)}, J.Obhodas²⁾, A.Kutle³⁾

¹⁾ A.C.T.,d.o.o., Prilesje 4, 10000 Zagreb, Croatia

²⁾ Institut Ruder Boskovic, Bijenicka c.54, 10000 Zagreb, Croatia

³⁾ NGO "Lijepa nasa", Palmoticeva 17A, 10000 Zagreb, Croatia

Phone: +385-(1)-468-0101

E-mail: valkovic@irb.hr

Concentration values of Cu, Zn, As and Pb in soil and coastal sea sediments of island Krk in Adriatic Sea, Croatia have been evaluated for their potential human health impact. Proposed screening values for Cu, Zn, As and Pb concentrations in soil corresponding to negligible, warning and unacceptable risk to human health are defined. Norms for coastal sea sediment classification into five classes are defined based on the concentration values of four biocide elements.

The measured Cu, Zn, As and Pb concentration values in soil and coastal sea sediments are presented as frequency distribution curves and as concentration maps indicating the presence of "hot spots", i.e. locations which are classified as unacceptable or highly contaminated category.