

Matuszewska, R., Szczotko, M., Bartosik, M., Krogulska, B. Occurrence of *Cryptosporidium* and *Giardia* in the Surface Water Intakes of Selected Waterworks. *Ochrona Srodowiska* 2011, Vol. 33, No. 3, pp. 67–69.

Abstract: Parasite protozoa of the genera *Cryptosporidium* and *Giardia* play an equally significant part in controlling the quality of the water intended for human consumption as do such indicator organisms as *Escherichia coli*, coliform bacteria, fecal streptococci and anaerobic sulfite-reducing clostridia. The aim of this study was to assess the occurrence of *Cryptosporidium* and *Giardia* in the surface water taken in by the waterworks of Warsaw, Plock and Bialystok. Water was sampled simultaneously at the intake, before rapid filtration and after rapid filtration. Simultaneously were also determined the counts of indicator bacteria and those of the sulfite-reducing clostridia spores. It has been demonstrated that water contamination with *Cryptosporidium* sp. oocysts was relatively low (0.23 per 1 dm³ on average) in contrast to the contamination by *Giardia* sp. cysts (1.1 per 1 dm³). Fecal streptococci and spores of sulfite-reducing clostridia were detected in all of the water samples, whereas the presence of coliform bacteria and *E. coli* was determined only in some of them. The results of the study have revealed that the treatment trains used in the investigated waterworks, and specifically the rapid filtration processes, provide a kind of 'safety fence' protecting against parasite protozoa and spores of sulfite-reducing clostridia.

Keywords: Surface water, parasite protozoa, *Cryptosporidium* oocysts, *Giardia* cysts, water treatment, filtration.