Kolwzan, B., Jadczyk, P., Pasternak, G., Gluszczak, J., Pawlik, M., Krawczynska, M., Klein, J., Rybak, J. Assessing Air Quality in the Proximity of a Municipal Sewage Treatment Plant: A Case Study. *Ochrona Srodowiska* 2012, Vol. 34, No. 2, pp. 9–14.

Abstract: Air in the vicinity of a municipal sewage treatment plant was assessed for microbial quality. Measurements were carried out in the time span of 2011 and 2012, taking into account seasonal patterns of change. Classification of the extent of microbial contamination was based on the number of mesophilic bacteria, actinomycetes, *Pseudomonas fluorescens*, α- and β-hemolyzing staphylococci, and fungal spores. It was demonstrated that the number of airborne microorganisms in the vicinity of the sewage treatment plant followed a seasonal pattern and differed from one measuring point to another, in many instances exceeding the characteristic values measured in unpolluted air. The highest number of microorganisms were determined in summer and fall, and the lowest in winter, when low air temperature limited microbial viability. Simultaneously, a noticeable increase in microbial numbers was observed on the lee side. The results obtained in this study, as well as the available literature data, substantiate the need for hermetizing the objects of the sewage treatment plant and subjecting them to periodical air quality monitoring.

Keywords: Sewage treatment plant, air pollution, bioaerosol, bacteria, fungi.