ARCHITECTURE CIVIL ENGINEERING ENVIRONMENT
The Silesian University of Technology No. 3/2018

doi: 10.21307/ACEE-2018-049

THE REUSE OF WASHINGS FROM POOL FILTRATION PLANTS AFTER THE USE OF SIMPLE PURIFICATION PROCESSES

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Received: 24.05.18; Revised: 28.06.18; Accepted: 2.07.18

Abstract

The main purpose of the research is to show the possibility of using washings after applying simple processes and devices. It is being considered whether they may be drained to watercourses, to the ground, used for watering plants, sprinkling tennis courts and playing fields, flushing toilets or recycled into pool systems. The research concept consisted of comparing the results of physico-chemical analysis of washings samples with the limit values for pollutants in wastewater discharged to water and ground. The research was carried out for 20 pool water treatment plants. It has been shown that the concentration of TSS (total suspended solids) and free chlorine in washings are the main parameters preventing their drainage to the natural environment. The processes of sedimentation or sedimentation assisted by coagulation allow to reduce the TSS concentration below the limit value and leaving the washings to stand for up to several hours or subjecting them to a few minutes of aeration decreases the concentration of free chlorine to an acceptable level. The obtained research results allow to assume that the management of washings in all tested swimming pools would be possible after applying a settler or a settling tank with a coagulant chamber and then a chamber for aeration.

Keywords: **Washings, Swimming pool; Management of washings; Sedimentation; Coagulation.**