

"Gh. Asachi" Technical University of Iasi, Romania

SOME ASPECTS ABOUT PERFORMANCES OF BIOCHEMICAL STAGE FROM PETROCHEMICAL WASTEWATER TREATMENT PLANT

Elisabeta Chirila^{1*}, Dan Mandopol²

1 "Ovidius" University, Chemistry Department, 124 Mamaia Blvd, 8700 RO Constanta, Romania,
2 Ovidius" University, Technology and Chemical Engineering Department, 124 Mamaia Blvd,
8700 RO Constanta, Romania

Abstract

The paper presents new studies on the removal efficiencies related to the quality specific indicators for biochemical stage of petrochemical wastewater treatment plant. Studies were performed on a modern wastewater treatment plant in Romania, located on the Black Sea coast, which processes about 500 L·s⁻¹ of effluent from an important petrochemical complex.

The dynamics of average removal efficiencies for oil products, total suspended solids, sulfides, phenols, CODCr and BOD₅ between September 2002 and April 2003 are shown. The obtained reported performances demonstrate that it is necessary to improve the aeration system in the biochemical treatment stage.

Keywords: removal efficiency, petrochemical wastewater, biochemical treatment

^{1*} Author to whom all correspondence should be addressed: Phone: 00 40 241 614576, Fax: 00 40 241 618372, e-mail: echirila@univ-ovidius.ro