

Abstract

A large portion of polychlorinated biphenyls (PCBs) from e-waste released into the coastal areas may be the potential source of PCBs to the global oceans. The paper presents data of PCBs concentrations in fifty surface sediment samples and a dated sediment core in Yangtze River Delta (YRE) and adjacent East China Sea (ECS). The total PCBs levels varied from 5.08 to 19.64 ng/g dry weight, with the highest concentrations situate within the river-sea boundary zone which is so-called “marginal filter”. Concurrent with the operation of e-waste recycling over the last two decades, PCB fluxes started to rise again after 1980s and reached a maximum in this century. The full data set was used to estimate the burden of PCBs in YRE and adjacent ECS. A total sediment burdens were 192.8 tons, with the spatial density of 364 ng/cm² which accounts for 1.9% of all the PCBs in China.