

Abstract

Waste incineration is just beginning to develop in Algeria, and waste pollution is caused by PCDD/Fs and VOCs emissions that should be monitored and quantified. This study presents a qualitative and quantitative analysis of volatile and semi-volatile organic compounds (BTEXs, PCDDs and PCDFs), and their average concentrations were evaluated by emissions stack monitoring of an industrial waste incinerator (ECFERAL Company). For the BTEXs collection, the active sampling was deployed in the vicinity of the ECFERAL Company. However, the PCDD/Fs collection was accomplished by active sampling using an isokinetic sampler in the gas release from the incinerator chimney. The BTEX results of samples by GC/FID analysis showed that the average level was 77.3 $\mu\text{g.m}^{-3}$, while the recorded atmospheric level of PCDD/Fs varied from 21 to 774 pg TEQ m^{-3}