

**P 46. FORMATION of PCDD/PCDF, ITS EFFECTS AND REMOVAL**

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**ABSTRACT:** The elimination of polychlorinated dioxin / furan (PCDD / F) emissions from solid waste incineration plants (incinerators) has an increasing prevalence due to the toxic properties of these compounds and the requirement to meet emission standards. These pollutants are generally toxic pollutants, even at low concentrations, which may be in the form of gases or particulates, which are formed as a result of combustion processes. Polychlorinated dibenzodioxin (PCDD) and polychlorinated dibenzofuran (PCDF) are colorless, odorless, water insoluble, noncommercial aromatic compounds containing C, H, O and Cl. Of the 210 different PCDD / F (75 PCDD, 135 PCDF) compounds in the forest, 17 are the most toxic. The most important properties of these compounds are photochemical and biodegradation resistance, they reach high concentration in the food chain, they accumulate in the fatty tissues of humans and animals and continue their toxic effects for many years. For these reasons, the prevention of these compounds should be avoided, if appropriate, in accordance with the receiving environment and emission standards, using appropriate technologies, before they can be released to the atmosphere, if their formation can not be prevented. This work is a review study taking into consideration the studies on the formation, effects and removal of dioxin / furan from combustion plants.

*Keywords: incinerator, PCDD/PCDF, adsorption*