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## MONITORING, ACCEPTANCE LIMITS AND HEALTH CONSEQUENCE OF ODOUR NUISANCE: A SHORT LITERATURE REVIEW ON THE STATUS OF THE ART

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### Abstract

The increased sensibility of people occurred in the last years towards the environment and the quality of life have led to the classification of odours as harmful atmospheric pollutants. Exposure to odours, pleasant as unpleasant, can generate different effects in peoples ranging from emotional reactions annoyance up to indirect health consequences due to stress reactions, affecting to a not negligible extent the overall quality of life. The monitoring of odour nuisance is then one of the growing environmental issues affecting the human life in industrial, rural, and residential areas. The main methodological approaches for odour detection developed in the past decades includes odour impact criteria and field inspections. The former typically relies on the use of physic-mathematical models for odour dispersion, able to consider both meteorological and topographical features of the area, returning the odour concentration ( $\text{ouE}/\text{m}^3$ ) in the surrounding area. The latter involves the use of panels of assessors for detecting the effective exposure to odour and the extent of odour plumes. By the way significant differences exist in the worldwide regulations concerning the odour limit concentration, the percentiles of yearly hours, the averaging time and the peck-to-mean factor. Additionally, epidemiologic study concerning health consequences on people exposed to odour, resulted affected by several methodological biases. This makes the finding reported in the different studies not always fully reliable and meaningful.

*Key words:* exposure assessment, health effects, impact criteria, international regulations

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