

The aim of this work is to monitor the issue of odorous substances in the Czech Republic. In most cases, the main source of information are studies prepared at the request of the municipal or city authorities. Individual areas affected with this problem, those that I focused on in this work, were selected according to numbers of inducements and complaints from local residents.

The introduction of the theoretical part deals with the anatomy of the olfactory system and the reaction of brain perceptions on odour stimulus. Furthermore, I describe the possibilities of measuring odours. Due to low concentrations of odours the least used method is gas chromatography; another option is olfactometry, which is based on the principle of mixing pre-determined concentration of an odorant with neutral gas. In the studies that are the main source of this work, I used the method of questionnaires that are consisted of evaluations of the smell from the locals. Moreover, I also described the procedure of filing in complaints about odours in the neighborhood of residence and its support in the law. The core of the practical part are the complaints of people that were submitted to the Czech Environmental Inspectorate for the years 2006 to 2009. Includes both specific businesses that are repeat complaints and fines of CZK 100 000, granted to them. Further, there are analyzed studies addressing odor problems in different parts the Czech Republic. This is one site of the city of Pardubice, region Mělnicko, the city of Kolín, western Krušnohoří region and the town of Jihlava.

The result of this work is a summary of the complaints of residents and their classification by type, quantity, location, but also legitimacy. Thus contributing to an overall overview of the problem of odorous substances in our territory.