

Improving Environmental Protection Legislation from the Perspective of Identifying Pestilential Odors

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ABSTRACT: The study follows the analysis of European legislation and national legislation in Romania on the olfactory discomfort noticed in the open air, starting from the situation of City of Brasov from Transylvania, where residents often noticed in 2019, the existence of pestilential odors in certain areas of the city, which led to numerous complaints to public authorities. This particular case requires the identification of mechanisms by which substances with an olfactory impact can be identified and subsequently correlated with ambient air quality, in order to determine whether it represents a real danger to the health of exposed inhabitants. These mechanisms can be applied more or less by different competent authorities in the field, but the applicable legal framework must be sufficiently elaborated to allow concrete results to be obtained. Therefore, beyond a potential subjectivism related to the sensitivity to odors and implicitly to the regulation of their monitoring and the establishment of measures in order to prevent and reduce the olfactory discomfort, certain aspects (identification of the source of smell, establishment of measurement/determination methods, technical possibilities monitoring and measurement of odors) requires a thorough analysis of the situation created, the article notes certain shortcomings in the legal framework governing this area and brings proposals to improve it.

KEYWORDS: law, pestilential odors, air, mechanism

Introduction

The right to health care is unanimously recognized by international regulations and is found under the protection of constitutional norms in most states of the world.

At the Council of Europe level, there is no separate article in the European Convention on Fundamental Rights and Freedoms, but the jurisprudence of the European Court of Human Rights, through its creative spirit, has often referred to the existence of the right to a healthy environment, indirectly, by integrating it into other rights already enshrined at European level, such as the right to private property, the right to life or the right to privacy. In most cases, European case law has extended the protection of privacy provided for in Article 8 of the Convention to the healthy environment in which man has the right to live (Sumudu 2006, 17).

Thus, in *Guerra and Others v. Italy*, the Court held that there were direct consequences of the production of noxious substances by the activity of a neighboring chemical plant on privacy, and in *López-Ostra v. Spain*, the Court ruled that by placing a treatment plant of wastewater, with adverse effects on the applicant's private and family life, in the vicinity of her home, the State concerned did not ensure a fair balance between the general interests, embodied in the present case by the need to build such a station and the applicant's right to benefit from a healthy environment, as defended by art. 8 of the ECHR (Bârsan 2006, 599).

More recently adopted, the Charter of Fundamental Rights of the European Union regulates environmental protection in Article 37, stating that "Union policies must provide a high level of environmental protection and quality improvement, to be ensured in accordance with the principle of sustainable development".

Directive 50/2008 of the European Parliament and of the Council of the European Union on air quality and cleaner air for Europe also deals with ways to combat pollutant emissions at source and to identify and implement the most effective pollution control measures. reducing emissions at local, national and Community level. Accordingly, the preamble to the Directive states that emissions of harmful atmospheric pollutants should be avoided, combated, or reduced

and appropriate targets for ambient air quality should be set, taking into account World Health Organization standards, guidelines, and programs.

At the national level, Romanian legislation protects the right to a healthy environment through art. 35 of the Romanian Constitution and has transposed Directive 50/2008 by Law no. 104/2011 on ambient air quality (Romanian People`s Advocate Recommendation no.34/2020).

In the context of the right to a healthy environment, we question whether the existence of olfactory discomfort may, under certain conditions, be a possible harm to the right to a healthy environment, since there are currently no international limit values for this type of discomfort, and at the level of the World Health Organization were published only the indicative values for limiting olfactory discomfort, but for a small number of individual compounds and not for all odor-generating compounds.

The situation is of particular importance, as there may be various organic and inorganic chemical compounds with an olfactory impact in the atmosphere, which are not covered by Directive 50/2008 on ambient air quality and clean air for Europe: sulfur compounds; nitrogen compounds; oxygen compounds; hydrocarbs.

Deficiencies in legislation

The link between olfactory discomfort and public health is made through legislative changes that have taken place recently at the national level and which we will refer to in detail. For the time being, we will limit ourselves to specifying the content of art.64⁶ of Law no.123/2020 according to which, “in the situation where following the investigations the central public authority for health, through subordinated structures, finds the olfactory discomfort and the state of health of the population, notifies the competent authority for environmental protection responsible for issuing the regulatory acts in the field of environmental protection for the re-examination and updating of the respective acts”.

For the evaluation of odor concentration, chemical analysis techniques of odor-generating compounds or sensory methods that provide information can be used, and the choice of method must take into account certain factors (purpose, location, type of source, odor frequency).

The quantification of the sensory properties of the odor sources can be achieved objectively, the odor concentration being the targeted parameter, based on the indicative values used at European / international level, in the absence of nationally regulated values.

Also, specific equipment is needed to identify and determine odors, but the national competent authorities, namely the National Environmental Guard and the National Agency for Environmental Protection, must detain the necessary equipment to carry out measurements of these odors and thus eliminate, beyond any doubt of the existence in the air of substances which endanger the health of the population (Florea 2020, 209).

In the Municipality of Braşov in Romania, unpleasant odors in the air were found several times during 2019 by the population and, subsequently, by the competent authorities, which imposed actions to determine their cause, as well as to remedy the situation created.

Although EU legislation does not include regulations on olfactory discomfort, it is indirectly regulated by establishing measures to prevent and reduce emissions and airborne concentrations of air pollutants that can cause olfactory discomfort.

If there is an olfactory discomfort, the operator must find solutions to prevent the persistence of the olfactory discomfort. For example, Implementing Decision (EU) 2017/302 establishing conclusions on best available techniques under Directive 2010/75/EU of the European Parliament and of the Council for the intensive rearing of poultry and pigs, provides that odor emissions can be monitored using EN Standards: dynamic olfactometry in accordance with EN 13725 to determine odor concentration; ISO standards, national standards or other international standards that ensure the provision of data of an equivalent scientific quality.

Considering a potential subjectivism related to odor sensitivity and implicitly regulating their monitoring and establishing measures to prevent and reduce olfactory discomfort, certain aspects (identifying the source of odor, establishing measurement/ determination methods, technical possibilities for monitoring and odor measurement) require a more in-depth analysis and on the other hand given the many complaints reported on olfactory discomfort situations, the Romanian Ministry of Environment, Waters and Forests considered it appropriate to introduce clear regulations on monitoring and measuring olfactory discomfort.

In this regard, this ministry submitted a series of amendments to the draft law amending the Government Emergency Ordinance no. 195/2005 on environmental protection, approved with amendments by Law no. 265/2006, which among other things establishes additional measures for prevention of the reduction and control of olfactory discomfort that must be respected by economic operators, so as not to affect the health of the population and the environment.

Recent regulation of olfactory discomfort

The law on odors introduces in the Romanian legislation the term “olfactory discomfort” and introduces several control attributions and obligations on the part of the local public administration authorities for olfactory monitoring.

As a result, on July 16, 2020, the amendments adopted by Law no. 123/2020, also known as the “Law of Smells”, which, in art. 2 point 23[^]1, defines the notion of olfactory discomfort as “the generated effect of an activity that may have an impact on the health of the population and the environment, which is subjectively perceived on different scales of odors or is objectively quantified according to the national, European and international standards in force”.

The notion of olfactory discomfort management plan is also introduced: a plan of measures comprising the steps to be taken in specified time intervals, in order to identify, prevent and reduce olfactory discomfort that occurs both in the case of new facilities/ activities or existing installations/activities, as well as in case of substantial modifications of existing installations/activities.

Regarding the attributions of the public authorities, the law brings additions regarding the environmental authority, but also regarding the central public authority for health. Thus, the latter, through subordinated structures, imposes, in the framework of regulatory procedures for projects or activities that may create olfactory discomfort in residential areas, the operating conditions for compliance with hygiene and public health rules on the living environment of the population, and the authorities Competences for environmental protection responsible for issuing regulatory acts in the field of environmental protection shall include the conditions imposed by the authorities subordinated to the central public health authority in those regulatory acts. The effective application of these procedures therefore requires interinstitutional cooperation at central level.

In the same sense, art. 59 of the law mentions the fact that the central public authority for environmental protection approves together with the central public authority in the field of health methodologies regarding the prevention and reduction of olfactory discomfort.

On the other hand, the law stipulates that economic operators or owners of activities that may cause olfactory discomfort are obliged to develop the olfactory discomfort management plan, being mandatory to comply with the measures contained in the compliance program and the measures set out in the olfactory discomfort management plan. deadlines.

The economic operator or the holder carrying out activities for which it is necessary to obtain the environmental permit has the following obligations:

a) take all necessary measures to prevent olfactory discomfort so as not to affect the health of the population and the environment;

b) If the prevention of emissions of substances with a strong olfactory impact is not technically and economically possible, take all necessary measures to reduce odor emissions so that the olfactory discomfort does not affect the health of the population and the environment;

c) provides its own olfactory discomfort monitoring systems.

Otherwise, the central public authority for environmental protection shall order, in writing or in the control act, the temporary or permanent cessation of activities generating pollution, olfactory discomfort, in order to apply emergency measures or for non-compliance with the compliance program and/or the olfactory discomfort management plan, as appropriate; calls for the application of technological measures, restrictions and bans in order to prevent, limit or eliminate pollutant emissions and olfactory discomfort.

According to art. 64 ^ 5 of the law, the presence and concentration of odors in the ambient air are evaluated in accordance with the standards in force, respectively «SR EN 16841-1 Ambient air. Determination of odor in ambient air by field inspection Part 1: Grid method », « SR EN 16841-2 Ambient air. Determination of the presence of odors in ambient air by field inspection Part 2: Odor trace method 'and' SR EN 13725 Air quality. Determination of the concentration of an odor by dynamic olfactometry» or by other international standards which guarantee the obtaining of data of an equivalent scientific quality.

Brasov Case

In the Municipality of Braşov, the four air quality monitoring stations located in the city allow the continuous measurement of only the concentration of the following odor-generating organic compounds: benzene, toluene, ethylbenzene, ortho-xylene, meta-xylene and para-xylene. From the data taken from the 5 air quality monitoring stations in Braşov, no toxic substances were detected in the atmosphere, the data are made available to the public on the website www.calitateair.ro.

However, the indicated site must be modernized for easy access by citizens, who can thus be held accountable for taking measures to prevent air pollution and in order to ensure a civic education of the population.

Also, to determine the concentration of the following odor-generating inorganic compounds: ammonia and hydrogen sulfide, the results of the measurements are made available to the public on the website <http://www.anpm.ro/web/apm-brasov/rapoarte-lunare1> by Braşov Environmental Protection Agency. However, following the evaluations performed by this authority, it was found that the odors *were not generated by the compounds monitored by APM Braşov, but by other compounds*.

As already mentioned, there may be various organic and inorganic chemical compounds with an olfactory impact in the atmosphere, which are not covered by Directive 50/2008. From the description of the odor presented in the complaints registered at APM Braşov, it is probable that the odor was generated by a complex mixture of compounds in which there were indole compounds (indole/scatol). Carrying out investigations only from an organoleptic point of view, is not efficient, being necessary an equipment designed to measure environmental factors, including for determining odors.

Following the research carried out by the local competent authorities, several companies were identified which through their activity produced olfactory discomfort: companies with agricultural profile, companies with animal and bird breeding profile, a company with activity in the field of waste disposal; the activity of companies with activity in the field of constructions is constantly monitored, unplanned controls are made in areas with high real estate development, where the level of suspended dusts and sedimentable dusts is susceptible to increase (PM 2.5, PM10). As companies burning waste on construction sites were identified, remedial measures were taken and sanctions were imposed.

Regarding the odor due to the natural fertilization of the soil, the economic operators with this activity profile were checked, and following the controls, measures were imposed to prevent

the discomfort, by observing the technical procedures for incorporating manure in the soil and transporting in accordance with the legal provisions;

The authorities also stated that the olfactory discomfort that is sometimes felt may be due to possible accidental emissions from the landfill of the Municipality of Braşov, which is constantly monitored. The authorities requested the waste landfill administrator, in 2019, an impact study on the health status of the population in the area, its results not being publicly communicated.

Another initiative, this time in the field of scientific research, was to monitor and intervene immediately in air quality control by signing the partnership between the Air Force Academy Henri Coandă (2020) and the Ministry of Environment, Waters and Forests and initiating and actively participating to the elaboration of the theme “Development of the administrative capacity of the Ministry of Environment regarding the management of emergency situations generated by the risks specific to the Ministry and of the situations regarding the state of the environment”.

- involvement and supervision of the implementation of the Integrated Air Quality Plan by the Municipality of Braşov, through thematic controls;

- supporting environmental protection by participating in the project "Increasing the capacity of civil society to formulate alternative public policies to support environmental protection by regulating the applicability of forest curtain laws", a project co-financed by the European Union;

- increasing the forested areas in Braşov County;

- improving the sanitation status at the administrative-territorial units through measures with short deadlines for its implementation and continuous monitoring;

- educating and raising awareness of environmental issues and maintaining an appropriate quality of the environment.

Conclusions

However, the lack of special equipment needed to monitor olfactory odors, which can have a negative impact on the environment and the health of the population, remains a shortcoming that will have to be removed for proper implementation of the new legislative changes in the field of discomfort. olfactory, which is why we propose the allocation of funds for the purchase of equipment to determine the causes of olfactory discomfort. Otherwise, these innovative provisions will remain only a formal legal framework, for the observance of which the competent public authorities will not have the necessary means.

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