

AIR QUALITY LAW IN THE EU AND IN BELGIUM

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I. INTRODUCTION

Air pollution harms human health and the environment. In Europe, emissions of many air pollutants have decreased substantially over the past decades, resulting in improved air quality across the continent. However, according to the European Environment Agency, air pollutant concentrations are still too high, and air quality problems persist. A significant proportion of Europe's population live in areas, especially cities, where exceedances of air quality standards occur: ozone, nitrogen dioxide and particulate matter (PM) pollution poses serious health risks. Air pollution is at the same time a local, pan-European and hemispheric issue. Air pollutants released in one country may indeed be transported in the atmosphere, contributing to or resulting in poor air quality elsewhere.¹ There are various sources of air pollution, both anthropogenic and of natural origin: burning of fossil fuels in electricity generation, transport, industry and households; industrial processes and solvent use, for example in chemical and mineral industries; agriculture; waste treatment; volcanic eruptions, windblown dust, sea-salt spray and emissions of volatile organic compounds from plants are examples of natural emission sources.²

In this contribution we outline the development of the air pollution legislation of the EU and of Belgium and, after having looked at the current situation of air pollution in Belgium, we focus on some specific implementation issues related to Directive 2008/50/EC on ambient air quality and cleaner air for Europe, before coming to our conclusion.

¹ European Environment Agency, *Air pollution. Air pollution harms human health and the environment*, Copenhagen, 2008, 5; <https://www.eea.europa.eu/themes/air/intro>.

² *Ibid.*, 7.

II. DEVELOPMENT OF AIR POLLUTION LAW

A. AT EU LEVEL

The first initiative taken at EU level (at that time known as the EEC) to combat air pollution dates back to 1970, well before the start of the common European environmental policy that is mostly situated in October 1972 during the Paris Summit of Heads of States and Governments³ and the subsequent adoption of the First Environmental Action Programme 1973–1976 in November 1973. It concerned Council Directive 70/220/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to measures to be taken against air pollution by gases from positive-ignition engines of *motor vehicles*.⁴ It contained the first *emission standards for (new) vehicles* and has been in force until 1st of January 2013, subject to a series of amendments. It was replaced by Regulation (EC) No 715/2007 of the European Parliament and of the Council of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information, which regulates the type approval of those motor vehicles. Some amendments have been introduced over time in that Regulation. Those basic regulations have been complemented by a number of specific directives and regulations for different types of vehicles.⁵

The first measures to combat air pollution stemming from *fuels* were introduced by Council Directive 75/716/EEC of 24 November 1975 on the approximation of the laws of the Member States relating to the *sulphur content of certain liquid fuels* and Council Directive 78/611/EEC of 29 June 1978 on the approximation of the laws of the Member States concerning the *lead content of petrol*. The first Directive was replaced by Council Directive 93/12/EEC relating to the sulphur content of certain liquid fuels, and again by Council Directive 1999/32/EC relating to a reduction in the sulphur content of certain liquid fuels and by Directive (EU) 2016/802 of the European Parliament and of the Council

³ As Outcome of the Paris Summit from 19 to 21 October 1972 the European Commission was charged to prepare the First Environmental Action Program; L. KRÄMER, *EEC Treaty and Environmental Protection*, London, Sweet & Maxwell, 1990, 1.

⁴ L. LAVRYSEN, *De ontwikkeling van het Europese, Belgische en Vlaamse milieurecht in een wijzigende institutionele context*, Antwerpen, Kluwer Rechtswetenschappen België, 1998, 37; J.H. JANS and H.H.B. VEDDER, *European Environmental Law*, Third edition, Groningen, Europa Law Publishing, 2008, 380–381; L. KRÄMER, *Droit de l'environnement de l'Union européenne*, Basel, Helbing Lichtenhahn, 2011, 239–240.

⁵ L. LAVRYSEN, *Handboek Milieurecht 2020*, Mechelen, Wolters Kluwer Belgium, nr. 552 (in press); N. DE SADELEER, “Reinforcing EU testing methods of air emissions and the approval processes of vehicle compliance in the wake of the VW scandal”, *Era Forum*, 2016, DOI 10.1007/s12027-016-0448-x; N. DE SADELEER, “Harmonizing Car Emissions, Air Quality, and Fuel Quality Standards in the Wake of the VW Scandal. How to Square the Circle?”, *EJRR* 2016, 1–14.

relating to a reduction in the sulphur content of certain liquid fuels, which now regulates the matter in a much more stringent way than the earlier directives. The second Directive was replaced by Council Directive 85/210/EEC on the approximation of the laws of the Member States concerning the lead content of petrol and later by Directive 98/70/EC of the European Parliament and of the Council relating to the *quality of petrol and diesel fuels*, amended multiple times, which in respect of road vehicles, and non-road mobile machinery (including inland waterway vessels when not at sea), agricultural and forestry tractors, and recreational craft when not at sea, now sets technical specifications on health and environmental grounds for fuels to be used with positive ignition and compression-ignition engines, taking into account the technical requirements of those engines. Leaded petrol has been banned since 1 January 2000.⁶

Under pressure of the 1979 Geneva Convention on Long-range Transboundary Air Pollution concluded in the framework of the UNECE⁷, the first ambient *air quality standards* were laid down by Council Directive 80/779/EEC of 15 July 1980 on air quality limit values and guide values for *sulphur dioxide* and *suspended particulates*.⁸ This was followed some years later by Council Directive 82/884/EEC on a limit value for *lead in the air*, Council Directive 85/203/EEC on air quality standards for *nitrogen dioxide* and Council Directive 92/72/EEC on air pollution by *ozone*.⁹ Most of those Directives have been amended¹⁰ during their life span before being replaced later by Council Directive 1999/30/EC relating to limit values for *sulphur dioxide*, *nitrogen dioxide* and *oxides of nitrogen, particulate matter and lead* in ambient air¹¹ and again by Directive 2008/50/EC of the European Parliament and of the Council on *ambient air quality and cleaner air for Europe*¹² (the “Air Quality Directive”).

⁶ J.H. JANS and H.H.B. VEDDER, *European Environmental Law*, *op. cit.*, 381–382.

⁷ www.unece.org/ab/environmental-policy/conventions/envlrapwelcome/the-air-convention-and-its-protocols/the-convention-and-its-achievements.html.

⁸ L. LAVRYSEN, *De ontwikkeling van het Europese, Belgische en Vlaamse milieurecht in een wijzigende institutionele context*, *op. cit.*, 98–99.

⁹ *Ibid.*, 204.

¹⁰ Or replaced later, e.g. Directive 2002/3/EC of the European Parliament and of the Council of 12 February 2002 relating to ozone in ambient air.

¹¹ J.H. JANS and H.H.B. VEDDER, *European Environmental Law*, *op. cit.*, 374–376.

¹² Amended by Commission Directive (EU) 2015/1480 of 28 August 2015 amending several annexes to Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council laying down the rules concerning reference methods, data validation and location of sampling points for the assessment of ambient air quality. The CJEU has held that the natural or legal persons directly concerned by the limit values being exceeded must be in a position to require the competent authorities, if necessary by bringing an action before the courts having jurisdiction, to establish an air quality plan which complies with the Directive (CJEU 25 July 2008, C-237/07, *Janecek*). While Member States have a degree of discretion in deciding which measures to adopt, those measures must, in any event, ensure that the period during which the limit values are exceeded is as short as possible (CJEU 28 November 2013, C-404/13, *ClientEarth*).

That Directive currently sets the EU air quality standards that are much stricter than those contained in the first Directives.

Council Directive 84/360/EEC of 28 June 1984 on the combating of air pollution from industrial plants marked the start of EU policies to combat *air pollution from industrial sources*. It was followed by Council Directive 88/609/EEC on the limitation of emissions of certain pollutants into the air from *large combustion plants* – replaced later by Directive 2001/80/EC of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from large combustion plants –, by Council Directive 89/369/EEC on the prevention of air pollution from *new municipal waste incineration plants* and Council Directive 89/429/EEC on the reduction of air pollution from *existing municipal waste-incineration plants*¹³, replaced later by Directive 2000/76/EC of the European Parliament and of the Council on the *incineration of waste*. Directive 84/360/EEC was replaced by Directive 2008/1/EC of the European Parliament and of the Council concerning *integrated pollution prevention and control* and later by Directive 2010/75/EU of the European Parliament and of the Council on *industrial emissions (integrated pollution prevention and control)*, which now regulates the issue and integrated various former sectoral directives, including Council Directive 1999/13/EC on the limitation of *emissions of volatile organic compounds* due to the use of organic solvents in certain activities and installations, Directive 2000/76/EC of the European Parliament and of the Council on the incineration of waste and Directive 2001/80/EC of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from large combustion plants. Furthermore, there is the European Parliament and Council Directive 94/63/EC on the control of *volatile organic compound (VOC)* emissions resulting from the storage of petrol and its distribution from terminals to service stations.¹⁴

Directive 2001/81/EC of the European Parliament and of the Council of 23 October 2001 on *national emission ceilings (NEC)* for certain atmospheric pollutants set the 2010 national emission ceilings for sulphur dioxide, nitrogen oxides, volatile organic compounds and ammonia.¹⁵ Directive 2016/2284/EU of the European Parliament and of the Council on the reduction of national emissions of certain atmospheric pollutants regulates the matter now by setting stricter national reduction targets for 2020 and 2030 for those pollutants and for fine particulate matter.

¹³ L. LAVRYSEN, *De ontwikkeling van het Europese, Belgische en Vlaamse milieurecht in een wijzigende institutionele context*, op. cit., 202 and 204.

¹⁴ J.H. JANS and H.H.B. VEDDER, *European Environmental Law*, op. cit., 378–380; L. KRÄMER, *Droit de l'environnement de l'Union européenne*, op. cit., 235 and 241–244.

¹⁵ J.H. JANS and H.H.B. VEDDER, *European Environmental Law*, op. cit., 376–378.

B. AT BELGIAN LEVEL

Industrial air pollution has been regulated traditionally in the framework of the legislation concerning dangerous, unhealthy and insalubrious establishments that dates back to the Imperial Decree of 15 October 1810. This legislation has been updated a few times, *inter alia*, by the Act of 5 May 1988 and Title I of the General Workers Protection Regulations of 1946.¹⁶ By imposing specific environmental conditions through individual operating permits, serious forms of local air pollution could be combatted. The regionalisation of those policies in the 1980s has resulted in the introduction of updated environmental (or integrated environmental) permit systems in the three regions, coupled most of the time with the introduction of detailed general and sectoral environmental conditions, e.g. the so-called VLAREM II regulation in the Flemish Region.¹⁷ In that way, emission standards for fixed sources have been introduced over time, some being the transposition of the above-mentioned EU Directives, while others were inspired by German Law (the *TA-Luft* regulations) or were developed by the regional authorities themselves.¹⁸

With the Act of 29 December 1964 on combating air pollution, a broader *legal framework for combating air pollution* has been created, that authorises the executive power – the federal or the regional governments since the major part of environmental policy in Belgium has been regionalised¹⁹ – to come up with measures to reduce air pollution from various sources. It was meant in the first place to tackle local air pollution in light of the notorious “*Great Smog of London*” of the previous decade.²⁰ It resulted in the introduction of a number of regulations during the following years, such as the Royal Decree of 26 July 1971 concerning special air protection zones, in which restrictions on the use of highly polluting fuels for heating have been introduced, the Royal Decree of 8 November 1971 concerning the control of CO emissions of vehicles that are in use²¹, the Royal Decree of 8 August 1975 concerning emissions of sulphur dioxide and particulate matter from industrial combustion installations, the Royal Decree of 31 May 1978 concerning ambient air concentrations of lead in the municipality of Hoboken, and the Royal Decree of 6 January 1978 on

¹⁶ L. LAVRYSEN, *De ontwikkeling van het Europese, Belgische en Vlaamse milieurecht in een wijzigende institutionele context*, *op. cit.*, 48–63.

¹⁷ K. DEKETELAERE (ed.), *Handboek Milieurecht*, Brugge, die Keure, 2001, 488–558.

¹⁸ E. DE PUE, L. LAVRYSEN and P. STRYCKERS, *Milieuzakboekje 2019*, Mechelen, Wolters Kluwer Belgium, 626–627, 636–639; L. LAVRYSEN, *De ontwikkeling van het Europese, Belgische en Vlaamse milieurecht in een wijzigende institutionele context*, *op. cit.*, 544–550, 549, 851, 853–856.

¹⁹ L. LAVRYSEN, “Het Leefmilieu en het Waterbeleid” in B. SEUTIN and G. VAN HAEGENDOREN (eds), *De bevoegdheden van de gewesten*, Brugge, die Keure, 33–35, 57–60.

²⁰ L. LAVRYSEN, *De ontwikkeling van het Europese, Belgische en Vlaamse milieurecht in een wijzigende institutionele context*, *op. cit.*, 70–75.

²¹ *Ibid.*, 75–77.

combating air pollution from heating of buildings with solid or liquid fuels.²² Furthermore, various Royal Decrees have been enacted over time to implement EU Directives on the *composition of different types of fuels*.²³

As far as new *vehicles* are concerned, the EU type approval legislations and corresponding emission standards were implemented initially by a Royal Decree of 19 July 1971, and are now regulated by a Royal Decree of 26 February 1981, frequently amended, and now based on the Act of 21 June 1985 concerning technical prescriptions for vehicles. *Air quality standards* have been introduced from 1983 onwards to implement the corresponding EU Directives. The EU Air Quality Directive is nearly literally transposed in the respective regional regulations. In the Flemish Region, they are laid down in Chapter 2.5 (and Annexes) of VLAREM II²⁴, in pursuance of the Decree of 5 April 1995 on general provisions concerning environmental policy. In the Brussels Capital Region, the air quality standards are laid down in various Regulations of the Regional Government in pursuance of the Ordinance of 2 May 2013 containing the Brussels Code for Air, Climate and Energy. In the Walloon Region, they can also be found in a regulation of the Walloon Government.²⁵ There are no standards that are more stringent compared to those of the Air Quality Directive. In the Flemish region, however, there are a few air quality standards for pollutants not covered by EU legislation. That is the case for *chlorine, hydrogen chloride, monovinyl chloride, hydrogen fluoride, asbestos and dust deposits*. They are inspired by the German TA Luft 1986. Furthermore, the *NEC Directives* have also been transposed in domestic law.²⁶ From 2014 onwards, federal and regional legislation for the introduction of *low emission zones* has been adopted.²⁷

III. AIR QUALITY IN BELGIUM

Most concentrations of air pollutants in Belgium are below EU limits. WHO targets, however, are generally not met in Belgium. Even though air quality has improved over the past years, air pollution still has a significant health and economic impact. A large proportion of the air pollutants originates from non-

²² *Ibid.*, 164–171.

²³ *Ibid.*, 550–551; K. DEKETELAERE (ed.), *Handboek Milieurecht*, *op. cit.*, 819–827, 831–832, 834; L. LAVRYSEN, *Handboek Milieurecht 2016*, Mechelen, Wolters Kluwer Belgium, 660–663.

²⁴ B.VI.Reg. 1 juni 1995 houdende algemene en sectorale bepalingen inzake milieuhygiëne.

²⁵ A.G.w. du 15 juillet 2010 relatif à l'évaluation et la gestion de la qualité de l'air ambiant.

²⁶ L. LAVRYSEN, *De ontwikkeling van het Europese, Belgische en Vlaamse milieurecht in een wijzigende institutionele context*, *op. cit.*, 545–546, 852–853; K. DEKETELAERE (ed.), *Handboek Milieurecht*, *op. cit.*, 827–829; L. LAVRYSEN, *Handboek Milieurecht 2016*, *op. cit.*, 656–659, 658–660.

²⁷ L. LAVRYSEN, *Handboek Milieurecht 2016*, *op. cit.*, 664.

ETS sectors.²⁸ Put together, transport and domestic heating represent more than half of the emissions of most air pollutants.²⁹ Emissions from *energy production* and from *the most important industrial sectors* (petroleum, iron and steel, chemicals, food processing, beverages and tobacco...) all went down for the majority of pollutants. *Cement production* is the key source for NO_x, SO_x, Hg, Se and PCB. It has become the most important source of PCB emissions due to the substantial reduction of PCB emissions in the iron and steel sector. The absolute SO₂ and Hg emissions remained stable between 1990 and 2016, but the emissions of other sectors have decreased. *Road transport* remains the largest source of NO_x emissions. The *residential sector* has become the principal source of dioxins due to the huge emission decline in the electricity sector and the sector of waste incineration. This sector is the most important source of particulate matter, dioxins and PAH's due to the high contribution of wood for residential heating. It has also become a key source of heavy metals. As the absolute heavy metal emissions remain fairly stable, this is mainly due to emission changes in other sectors. *Manure management* has become the second most important source of NMVOC as absolute emissions from the chemical and coating sector have decreased significantly since 1990. It is one of the most important sources of NH₃ emissions. Emissions from animal manure applied to soils decreased in 2016 compared to 1990, but this sector remains the most important source of NH₃ emissions.³⁰

The automatic air quality monitoring network for NO₂, PM₁₀, PM_{2,5} and O₃ is run by the *Belgian Interregional Environment Agency (IRCEL – CELINE)* and is complemented by regional networks run by the regional administrations for measuring other pollutants. The number of monitoring stations has over time increased to 72 for PM and to 41 for O₃ and NO₂. The number of SO₂ monitoring stations has dropped from 81 in 1990 to 54 today.³¹ On the website of the *Belgian Interregional Environment Agency (IRCEL – CELINE)*³² the results of the measurements of the main pollutants covered by the EU Ambient Air Quality Directive through the automatic monitoring stations can be found in nearly real-time. The website also reports exceedances of the EU limit values. They show that, in recent years, there were no exceedances of the limit values of *particulate*

²⁸ Sectors that are not subject to the European Emission Trading Scheme for greenhouse gases contained in Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union (as Amended).

²⁹ C. VANPOUCKE, *Air Quality in Belgium. Road transport sector*, Belgian National Debate on Carbon Pricing, Brussels, 2017, https://www.climat.be/files/8515/3111/9866/14_Air_quality_CV.pdf.

³⁰ *Informative Inventory Report about Belgium's air emissions submitted under the Convention on Long Range Transboundary Air Pollution CLRTAP and National Emission Ceiling Directive NECD*, March 2018, p. 18–19; www.ircel.be/nl/luchtkwaliteit/emissies/IIR_BE.pdf.

³¹ [Www.ircel.be/en/air-quality/measurements/monitoring-stations/history](http://www.ircel.be/en/air-quality/measurements/monitoring-stations/history).

³² [Www.ircel.be/en](http://www.ircel.be/en).

matter. For *nitrogen dioxide* in recent years there were exceedances reported by 3 to 4 monitoring stations in the Brussels and Antwerp area. According to the data of 2018 (very dry with a hot summer) for *ozone*, several monitoring stations recorded exceedances of the target value for the protection of human health. The other pollutants are monitored and reported separately by the regions. In *Flanders*, no exceedances of *sulphur dioxide*, *carbon monoxide*, *lead* or *benzene* limit values were measured, but the *long-term O₃ objectives for the protection of health* and *for the protection of vegetation* were not met in (nearly) every monitoring station. As far as *arsenic*, *cadmium* and *nickel* are concerned, the target values of Directive 2004/107/EC were not met in 3, 1 and 1 out of 12 monitoring stations, while in all 8 stations the values for *polycyclic aromatic hydrocarbons* were met.³³

IV. IMPLEMENTATION OF THE AIR QUALITY DIRECTIVE

A. ARE THE OFFICIAL RESULTS REPRESENTATIVE?

It appears, however, that the results of the official monitoring stations do not tell the whole story. The main question is whether the sites where the monitoring stations are located are fully representative and meet the criteria laid down in Annex III of the Air Quality Directive, in particular where it prescribes that sampling points directed at the protection of human health shall be sited in such a way as to provide data on the areas within zones and agglomerations where *the highest concentrations occur to which the population is likely to be directly or indirectly exposed for a period which is significant in relation to the averaging period of the limit value(s) and levels* in other areas within the zones and agglomerations *which are representative of the exposure of the general population*. In May 2018 a citizen science project called “*CurieuzeNeuzen Vlaanderen*” (Curious Noses Flanders) was conducted in which 20,000 citizens measured the NO₂ air quality near their own home during one month. In 2.3% of the cases – mainly in street canyons – an exceedance of the limit value was measured. That would mean that around 150,000 people in the Flemish Region are affected by those exceedances.³⁴

³³ Vlaamse Milieumaatschappij, *Jaarrapport Lucht. Emissies 2000–2016 en 2017 luchtkwaliteit in Vlaanderen*, 6; www.vmm.be/bestanden/VMM-2017-LKT_TW.pdf.

Brussels Capital Region: <https://environnement.brussels/thematiques/air-climat/qualite-de-lair/reseau-de-mesure-de-la-qualite-de-lair>.

Walloon Region: <http://193.190.182.213/WebAirQuality/Accueil.aspx>.

³⁴ <https://curieuzeneuzen.be/in-english/>.

B. THE OBLIGATION TO COMMUNICATE ALL RELIABLE AIR QUALITY DATA TO THE EUROPEAN COMMISSION

On 10 October 2018, the President of the Dutch-speaking Court of First Instance of Brussels issued an order in the case of *Greenpeace Belgium v Flemish Region*.³⁵ According to the applicant, the Flemish Region violated its obligations under the Air Quality Directive due to its failure to communicate the information obtained through modelling techniques and detailed studies to the European Commission. While the directive holds that measurements shall be used to assess the ambient air quality as a minimum requirement, those techniques may be supplemented by modelling techniques and/or indicative measurements to provide adequate information on the spatial distribution of the ambient air quality. Although not an absolute requirement, it was self-evident to the Court President that when data are collected through other (trustworthy and in accordance with the conditions laid down in the Directive) techniques, that information must be taken into consideration when drawing up policy implementing the Air Quality Directive and during the actual assessment of the air quality. A finding to the contrary would run counter to the Directive's objective as well as undermine the basic assumption that a fixed measurement is the optimal, most stringent technique for assessing the ambient air quality. Therefore, if the facultative methods indicate that the limit values were exceeded, this amounts to a violation of the Air Quality Directive. Similarly, a violation is established when a Member State has applied indicative measurements and modelling techniques but fails to pass on this information to the European Commission. Given the lack of reporting to the European Commission of any data obtained outside of the fixed monitoring stations, the Flemish Region was ordered to provide all information to the European Commission within a time frame of 3 months.³⁶

C. THE CORRECT SITING OF MONITORING STATIONS

The European Commission³⁷ questions the location of sampling points for NO₂ in Brussels. That issue was also at the core of a reference for a preliminary

³⁵ Nederlandstalige Rechtbank van eerste aanleg Brussel, 10 oktober 2018, noot A. CARETTE, *TMR* 2018, 706–729; www.unece.org/fileadmin/DAM/env/pp/a.to.j/Jurisprudence_prj/BELGIUM/Belgium_2018_Greenpeace_AirQuality.pdf.

³⁶ S. VEREYCKEN, "A partial win for Greenpeace Belgium in air pollution case against the Flemish Region", World Commission on Environmental Law (WCEL) – International Union for Conservation of Nature (IUCN), 2018, <https://www.iucn.org/news/world-commission-environmental-law/201811/a-partial-win-greenpeace-belgium-air-pollution-case-against-flemish-region>.

³⁷ On 8 November 2018, the European Commission sent a formal notice of failure to implement the Air Quality Directive. According to that letter, Belgium has persistently failed to meet

ruling from the Court of First Instance of Brussels of 29 December 2017 in the case of *Craeynest and Others and ClientEarth v Brussels Capital Region* (Case C-723/17).³⁸ The CJEU held in its judgment of 26 June 2019:

“Article 4(3) TEU and the second subparagraph of Article 19(1) TEU, read in conjunction with the third paragraph of Article 288 TFEU, and Articles 6 and 7 of Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe must be interpreted as meaning that it is for a national court, hearing an application submitted for that purpose by individuals directly affected by the exceedance of the limit values referred to in Article 13(1) of that directive, to verify whether the sampling points located in a particular zone have been established in accordance with the criteria laid down in paragraph 1(a) of Section B of Annex III to the directive and, if they were not, to take all necessary measures in respect of the competent national authority, such as, if provided for by national law, an order, with a view to ensuring that those sampling points are sited in accordance with those criteria.”

One might expect that on the basis of that judgment more court cases will follow, now that a major discrepancy has been observed between the results of the official monitoring stations and the results obtained by the various citizen science projects.

D. WHEN IS THERE AN EXCEEDANCE?

In the case of *Craeynest and Others and ClientEarth/Brussels Capital Region* mentioned earlier, the Dutch-speaking Court of First Instance of Brussels held with reference to the case law of the CJEU that when limit values are exceeded, the Member State has a clear and unconditional obligation to draw up a plan as referred to in Art. 23 (1) of Directive 2008/50/EC. The fact that the competent authorities have a certain freedom of policy in determining the content of that plan does not prevent the court from issuing an order to the competent authority to draw up that plan. After all, if the limit values are exceeded, the government does not have the policy freedom to refrain from drawing up the

binding limit values for NO₂ in the Brussels region since they came into force in 2010. The Antwerp agglomeration also exceeds permitted values, despite already having been accorded the later deadline of 2015 for entry into force. Although some measures, such as low emission zones, were put in place to combat air pollution, the Commission is concerned that the current measures do not suffice to achieve compliance as soon as possible. Additionally, the Commission questions the way air quality is monitored in Belgium, including the location of sampling points for NO₂ in Brussels.

³⁸ Nederlandstalige Rechtbank van eerste aanleg 15 december 2017, *TMR* 2018, 228. See also: J. DE CONINCK and T. HUYGHE, “Het recht op ‘schone lucht’. Luchtqualiteitsplannen en lage-emissiezones als passende maatregelen: voldoen ze aan het (Europees) recht en het EVRM? – Vlaanderen en Brussel doorgelicht”, *MER* 2018, 119.

plan. Apart from the question already mentioned, a second question has been put forward: “Is a limit value within the meaning of Article 13(1) and Article 23(1) of [Directive 2008/50/EC] exceeded in the case where an exceedance of a limit value with an averaging period of one calendar year, as laid down in Annex XI to that directive, has been established on the basis of the measurement results from one single sampling point within the meaning of Article 7 of that directive, or does such an exceedance occur only when this becomes apparent from the average of the measurement results from all sampling points in a particular zone within the meaning of Directive 2008/50?”. In its judgment of 26 June 2019 the CJEU held:

“Article 13(1) and Article 23(1) of Directive 2008/50 must be interpreted as meaning that, in order to establish whether a limit value with an averaging period of one calendar year, as laid down in Annex XI to that directive, has been exceeded, it is sufficient that a pollution level higher than that value be measured at a single sampling point.”

E. AIR QUALITY PLANS AND GOVERNANCE

Where, in given zones or agglomerations, the levels of pollutants in ambient air exceed any limit value or target value, plus any relevant margin of tolerance in each case, Member States shall ensure pursuant to Article 23 of the Air Quality Directive that air quality plans are established for those zones and agglomerations in order to achieve the relevant limit value or target value. In the event of exceedances of those limit values for which the attainment deadline is already expired, the air quality plans shall set out appropriate measures, so that the exceedance period can be kept as short as possible. The air quality plans may additionally include specific measures aimed at the protection of sensitive population groups, including children. Where air quality plans must be prepared or implemented in respect of several pollutants, Member States shall, where appropriate, prepare and implement integrated air quality plans covering all pollutants concerned.

As air quality policy is a regional competence in Belgium, there is no National Air Quality Plan as such. In the context of the NEC Directive, a reduction program had to be drawn up in 2002 and 2006, which describes how the emission ceilings would be met. On 9 March 2007 the Flemish Government approved the Flemish contribution to the *Belgian Reduction Program in the context of the NEC Directive*.³⁹ This contribution was compiled with contributions from the other regions and the federal government into a National Program.⁴⁰ Furthermore, a *Flemish Air Quality Plan 2012–2015* was adopted in

³⁹ https://www.lne.be/sites/default/files/atoms/files/1nec-programma_vlaanderen_2006.pdf.

⁴⁰ https://www.lne.be/sites/default/files/atoms/files/6nec-programma_belgie_2006.pdf.

the context of the postponement of the deadline for meeting the standards of NO₂. That plan was said to contain measures to achieve the air quality standards for NO₂ as quickly as possible and was approved by the Flemish Government on 30 March 2012. The European Commission granted Belgium on 6 July 2012 a deferment for the standards to 2015 (instead of 2010). The additional measures to meet the standards include measures for the whole Flemish Region, on the one hand, and additional measures approved by the city of Antwerp and the Antwerp Port Authority (the two zones where according to the monitoring network the standards were not met) on the other hand. In 2016 it became clear that, although the air quality in both zones had improved, limit values for 2015 had not been met in several places in Flanders – not just in those two zones in Antwerp.⁴¹

The above-mentioned Judgment of 10 October 2018 of the President of the Dutch-speaking Court of First Instance of Brussels in the case of *Greenpeace Belgium/Flemish Region* ordered the Flemish Region to reassess the existing air quality plan for the Antwerp agglomeration, to expand its scope to the entire territory of the Flemish Region and to formulate measures taking into account all the data obtained, not solely those of the fixed measurements. The government must do so within a period of one year, subject to a penalty payment of 1,000 EUR per day of delay, with a maximum of 5,000,000 EUR. The European Commission has, as mentioned before, also initiated infringement proceedings on 8 November 2018.

On 20 July 2018, the Flemish Government approved the *draft Air Policy Plan 2030*.⁴² That marks one route to significantly improve air quality in Flanders by 2030. This draft plan includes objectives in the short term (as quickly as possible), in the medium term (by 2030) and in the long term (by 2050). In short, it means that the Flemish Government is committed to achieving the emission ceilings and the European air quality objectives. Flanders also wants to meet the (stricter) WHO recommended exposure limits, which has a positive impact on the health of the population. The final version after public consultation has yet to be approved. The Brussels-Capital Region has a *Regional Air-Climate-Energy Plan* (2016)⁴³, which, however, is not intended as such for the implementation of the Air Quality Directive. The Walloon Region has drafted an *Air-Climate-Energy Plan 2030* that will be submitted to public consultation.⁴⁴ The “Air” part has been added to the Walloon Contribution to the draft National Energy Climate Plan in the framework of Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action.

⁴¹ https://www.lne.be/sites/default/files/atoms/files/VR_2017_1301_MED.0004-2BISLuchtkwaliteitsplan.pdf; J. DE CONINCK and T. HUYGHE, *loc. cit.*, 128–134.

⁴² https://www.lne.be/sites/default/files/atoms/files/20180720_luchtbeleidsplan.pdf.

⁴³ http://document.environnement.brussels/opac_css/elecfile/PLAN_AIR_CLIMAT_ENERGIE_FR_DEF.pdf; J. DE CONINCK and T. HUYGHE, *loc. cit.*, 134–136.

⁴⁴ <https://energie.wallonie.be/fr/pace-2030.html?IDC=6238&IDD=127763>.

F. SOURCE-DIRECTED MEASURES

The main federal and regional regulatory measures that contribute to compliance with the Air Quality Directive and the Belgian NEC ceiling under Directive 2016/2284/EU⁴⁵ consist of general, sectoral and specific emission standards for industries, product standards for combustibles, product standards for heating equipment and periodic control and maintenance obligations, tax differentiation for combustibles and the use of cars, emission standards for cars, trucks and other mobile machines, tax incentives for electric cars, the possibility to restrict activities in periods of smog, etc... Recently, *low emission zones* have been introduced in Antwerp⁴⁶ and Brussels⁴⁷ and a new one will be implemented in Ghent in 2020. The Walloon Region now also has its legal framework for introducing such zones.⁴⁸ For plans and projects with potential impact on air quality, SEA and EIA will have to direct particular attention to the potential impact on Air Quality Standards and measures for minimizing that impact.⁴⁹ An important part of those measures consists of implementation or application of EU Environmental Law.

G. POLLUTION EPISODES

On 2 September 2008, the Environment ministers of the three regions adopted the protocol that determines the coordination during pollution episodes. The protocol is activated in the event of pollution peaks of PM10 or NO2. The task of IRCEL is “to monitor phases of increasing pollution and to warn the agencies responsible appointed by the Regions”. More specifically, IRCEL distributes an information bulletin in case increased concentrations of PM10 and/or NO2 are forecasted or measured. When the alarm phase is in effect, each Region has to activate the measures as foreseen by the emergency plans for peak concentrations of particulate matter.⁵⁰ For example, in case of intervention level 1 in the

⁴⁵ See also *The Environmental Implementation Review 2019*, Country Report Belgium, p. 21–22; http://ec.europa.eu/environment/eir/pdf/report_be_en.pdf

⁴⁶ R. MEEÛS, “De gemeenten en lage-emissiezones”, *T.Gem.* 2016, 245–254.

⁴⁷ The Constitutional Court found the Brussels Capital Region legislation not in breach of the rules dividing the competences between the federal and regional governments, nor property rights, the equality principle and the free movement of persons, goods and services: Constitutional Court, no. 37/2019, 28 February 2019, *Goukens/Brussels Capital Government*. https://lez.brussels/sites/default/files/lez_note_fr_vdef.pdf; J. DE CONINCK and T. HUYGHE, *loc. cit.*, 138–144.

⁴⁸ Décret du 17 janvier 2019 relatif à la lutte contre la pollution atmosphérique liée à la circulation des véhicules.

⁴⁹ E. DE PUE, L. LAVRYSEN and P. STRYCKERS, *Milieuzaakboekje 2018*, Kluwer Belgium, p. 611–632.

⁵⁰ Brussels Capital Region: <https://qualitedelair.brussels/content/seuils-dalerte>; Walloon Region: <https://www.wallonie.be/fr/dossier/pollution-de-lair-que-faire-en-cas-de-pic-de-p>

Brussels Capital Region⁵¹, public transport will be free and speed limits for cars and trucks will be imposed. In case of intervention level 2, there is a ban on road traffic in the whole region. Similar measures to level 1 measures in Brussels can be taken in the Walloon Region. For the Flemish Region, only speed limits can be put in place. The regional governments and their administrations are responsible for meeting air quality standards. Requirements to coordinate efforts of different public bodies concerned may be contained in the plans mentioned above, although it is not clear whether or not they are legally binding for the public bodies concerned. In general there is a lack of coordination in Belgium between the federal and regional authorities in this matter.⁵²

H. ENFORCEMENT OF AIR QUALITY LAW

Every region has its basic enforcement legislation for environmental law that is also applicable to air quality law. It involves a combination of administrative and criminal penalties, a model we also find at the federal level. Supervision is mainly done by environmental inspectorates. Environmental crimes can also be reported by the federal and local police. The choice of the penalization track is generally a prerogative of the public prosecutor.⁵³ There have been some court cases involving air quality law. Apart from the cases already discussed of *Greenpeace Belgium v. Flemish Region* and *Goukens v. Government of the Brussels Capital Region*, the following cases also deserve attention.

In the case of *Angenon/Flemish Region*, a case concerning an action for suspension and annulment of a land use plan and planning permission for the redevelopment of Ghent Railway Station and related projects (including an underground car park for 2,800 cars and a new road connection through a nature conservation area), it was argued that such a plan cannot be approved and such a permit cannot be delivered because that would lead to a lasting violation of PM₁₀, NO_x and NO₂ limit values in the vicinity. The Council of State did not accept the argument. The Council held that an urban development permit only

ollution; Flemish Region: <https://www.vlaanderen.be/mobiliteit-en-openbare-werken/duurzame-mobiliteit/smogalarm-maximaal-90-km-per-uur-op-autosnelwegen>.

⁵¹ See Executive Order of the Brussels Capital Region of 27 November 2008, amended by Executive Order of 31 May 2018.

⁵² See Federal Council for Sustainable Development, *Opinion concerning air quality governance in Belgium*, May 2018; <https://www.frdo-cfdd.be/sites/default/files/content/download/files/2018a05f.pdf>; Senate, *Information Report concerning the necessary cooperation between the federal government, the Communities and the Regions on improvement of air quality, with a view to the promotion of public health, 2017–2018, doc 6–391/3*.

⁵³ L. LAVRYSEN, C. BILLIET and J. VAN DEN BERGHE, EUFJE Conference 2015. *Protection of the Environment through Criminal Law: the Implementation and Application of the Eco-crime Directive in the EU Member States. Belgian Report*, <https://biblio.ugent.be/publication/6957798/file/6957799.pdf>.

grants permission to perform certain construction works and operations and that this, in itself, is not the cause of the emissions. Furthermore, according to the regulations, it is the Flemish Minister for the Environment who must take the necessary measures to ensure that the limit values are not exceeded, which must be done by planning and remediation measures at the international, Flemish or local level. There is no direct link between the environmental quality standards and permits for concrete projects.⁵⁴ In a similar case, *Melen/Walloon Region*, the Council of State held that the AQD and the transposing Order of the Walloon Government of 15 July 2010 aim to organize air quality assessment and management by developing integrated action plans by area or by agglomeration. Compliance with the limit values and the target values prescribed by these regulations is assessed in relation to a given area or agglomeration, but not in relation to a specific urban development project. They do not imply a general prohibition on granting any permit that could cause additional air pollution, nor do they impose a compensation obligation between the additional pollution resulting from a licensed project and the additional pollution that results from an existing project.⁵⁵ The absence of a clear link between the limit values of the Air Quality Directive and project development as illustrated in the case law of the Council of State, as well as the experience that air quality plans seem to be unable to bring conformity within the timeframe put forward, are weakening the enforcement of the Directive. That is probably also because those plans have no precise legal status in Belgian law, so that it is unclear how they could be enforced against the relevant authorities.

V. CONCLUSION

EU air protection law has brought much cleaner air to Europe and Belgium than was the case before the first measures were taken. The situation could even have been somewhat better if all the measures had been implemented correctly. The implementation of the Air Quality Directive is not perfect and some important legal questions have been clarified – and have yet to be clarified – in a dialogue between national courts and the CJEU. National case law also contributes to a better enforcement of the law. However, there is still a long way to go. According to the European Environment Agency, around 90% of city dwellers in Europe are exposed to pollutants at concentrations higher than the air quality levels deemed harmful to health. For example, fine particulate matter (PM_{2,5}) in the air has been estimated to reduce life expectancy in the EU by more than eight

⁵⁴ RvS 26 May 2008, nr. 183.359, *Angenon c.s.*, *TROS* 2008, 316, note J. BOUCKAERT and J. ROGGEN, “Fijn stof geen beletsel voor infrastructuurprojecten”.

⁵⁵ CdE n° 236.809, 15 December 2016, *Melen c.s.*, *Amén*. 2017, 218, *APT* 2017, 260, *CDPK* 2017, 531, 532, 553 en 554.

months. Benzo(a)pyrene is a carcinogenic pollutant of increasing concern, with concentrations being above the threshold set to protect human health in several urban areas. Europe's air quality has not always improved in line with the general decrease of anthropogenic (man-made) emissions of air pollutants. The EU's long-term objective is to achieve levels of air quality that do not result in an unacceptable impact on, and risks to, human health and the environment.⁵⁶ In late 2013, the European Commission adopted a proposed *Clean Air Quality Package* including new measures to reduce air pollution.⁵⁷ In the long run, one should strive to meet the stricter World Health Organization "Outdoor air quality guidelines", which are under review now.⁵⁸ Sustained effort in implementing and enforcing those stricter rules will be needed.

⁵⁶ <https://www.eea.europa.eu/themes/air/intro>.

⁵⁷ https://ec.europa.eu/environment/air/clean_air/index.htm.

⁵⁸ www.euro.who.int/en/health-topics/environment-and-health/air-quality/policy/who-outdoor-air-quality-guidelines.