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# Protection of the environment against electromagnetic fields – comments and amendments in the law<sup>1</sup>

## Abstract

The aim of this paper is to demonstrate whether applicable regulations unambiguously specify the role of public administration authorities in terms of protection against electromagnetic radiation in the environment. The paper employs the method of interpretation of norms of applicable law within which normative material of the discussed issue is analysed and selected opinions of the legal thought and judicial decisions are referred to. The paper also refers to the assessment of electromagnetic radiation in the environment in the West Pomeranian Voivodship in 2018 made on the basis of research carried out according to the State Environmental Monitoring Programme for 2016–2020, which in turn is grounded in the regulation of Article 2(1)(2) of the act of Inspection of Environmental Protection. The measurements were made in accordance with a relevant regulation and did not show excess levels of electronic fields in the environment. However, it needs to be remembered that the dynamic development of the telecommunication industry will result in enhanced monitoring and checks of the levels of these fields especially in publically available places.

## Key words:

electromagnetic radiation, Chief Inspector of Environmental Protection, measurements, monitoring, checks

## Introduction

Protection of the environment against electromagnetic fields involves maintaining the levels of electromagnetic fields below or at least at the permissible levels and reducing the levels of

1 The idea of writing a paper with the above title came from a study written by the co-author of this paper, Joanna Chałupińska, titled “Ocena promieniowania elektromagnetycznego w środowisku w województwie zachodniopomorskim w 2018 roku” [Assessment of electromagnetic radiation in the environment in the West Pomeranian Voivodship in 2018] which is available at [www.gios.gov.pl](http://www.gios.gov.pl). This paper was expanded with the established line of judicial decisions and the view of legal scholars and commentators, as well as with issues concerning the reviewing activity of the Inspection of Environmental Protection. It was also supplemented with legislative changes occurring within this subject area.

electromagnetic fields at least to permissible levels where they are not complied with. Regulations addressing the subject-matter in question were included in the act Environmental Law<sup>2</sup>, hereinafter: EL. Electromagnetic fields' levels have the character of immissions standards, which is why exceeding them as a result of the use of installations is not permitted.<sup>3</sup> Level indicators to protect the people against electromagnetic radiation are included in the relevant resolution.<sup>4</sup> An electromagnetic field means a type of a physical field, state of a physical space which has a characteristic involving the fact that the electric charge or another object of electric or magnetic properties inside it is impacted by a specific force.<sup>5</sup> There are two types of electromagnetic radiation in the environment: natural (Earth's geomagnetic field, cosmic rays) and artificial (introduced to the environment by man). Regulations of the law address artificial sources of electromagnetic fields such as: power facilities for generating and transmitting electricity (power plants, CHP plants, transformer stations, overhead power lines) as well as radiocommunication installations and facilities (cell towers, radio and TV broadcasting stations, radiolocation and radionavigation stations). The key legal act that indirectly addresses energy and electromagnetic efficiency, namely the Constitution of the Republic of Poland,<sup>6</sup> hereinafter: the Constitution needs to be pointed out here. It is because regulation of Article 5 points to "the obligation to ensure the possibilities for Poland's development pursuant to the principles of sustainable development, which (...) next to the issues related to the protection of health and life of users translates directly i.a. on ensuring possibly most effective use of energy"<sup>7</sup>, including sources of electromagnetic radiation. There is no doubt that ensuring energy security is in the public interest. The issue whether legal instruments serving the investment development are carried out at the expense of the requirements of environmental protection stays problematic.<sup>8</sup>

The effects triggered by the impact of an electromagnetic field are not fully identified. The impact of electromagnetic radiation depends on the frequency, strength of intensity and distribution of an electromagnetic field as well as the period over which is affects an organism. The assessment of the impact of the factor of time of electromagnetic fields' influencing

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2 Act of 27 April 2001 Environmental Law, Dz. U. (Journal of Laws) of 2019 item 1396 as amended.

3 *Prawo ochrony środowiska*, 3rd edition, M. Górski (ed.), Warsaw 2018, p. 354.

4 Regulation of the Minister of the Environment of 30 October 2003 on permissible levels of electromagnetic fields in the environment and ways of checking compliance with these levels (Dz. U. no. 192 item 1883) was repealed. On 1 January 2020 regulation of the Minister of Health of 17 December 2019 on permissible levels of electromagnetic fields in the environment entered into force (Dz. U. (Journal of Laws) of 2019 item 2448).

5 *Encyklopedia Powszechna PWN*, 3rd edition (as quoted in:): P. Korzeniowski, *Prawa i obowiązki przedsiębiorców w ochronie środowiska. Zarys encyklopedyczny*, Warsaw 2010, p. 198.

6 Constitution of the Republic of Poland of 2 April 1997 (Dz. U. (Journal of Laws) no. 78 item 483 as amended and corrected), hereinafter the Constitution.

7 D. Koc, *Wymogi wynikające z przepisów dotyczących efektywności energetycznej oraz certyfikacji energetycznej budynków w procesie inwestycyjnym*, in: *Energetyka i ochrona środowiska w procesie inwestycyjnym*, M. Cherka, F.M. Elżanowski, M. Swora, K.A. Wąsowski (eds.), Warsaw 2010, p. 25.

8 K. Sobieraj, *Obszary chronione wobec projektowanych regulacji w zakresie korytarzy przesyłowych*, in: *Problemy wdrażania systemu Natura 2000 w Polsce*, A. Kaźmierska-Patrzyzna, M.A. Król (eds.), Polskie Zrzeszenie Inżynierów i Techników Sanitarnych, Szczecin–Łódź–Poznań 2013, p. 662.

human health is one of the most difficult issues.<sup>9</sup> International research programmes play a very important role in the analysis. It is worth mentioning here the World Health Organization's programme "Electromagnetic field".<sup>10</sup> Guidelines of the International Commission on Non-Ionizing Radiation Protection do not include, however, detailed recommendations on the protection of the general public against electromagnetic fields. Member States may implement more rigorous standards concerning exposure to an electromagnetic field.<sup>11</sup>

A view (shaped to a great extent in the judicature of the Constitutional Tribunal) according to which a "healthy" environment is a constitutional value subject to which "the process of interpretation of the Constitution<sup>12</sup> must be ordered" is undeniable. However, one of the premises restricting the constitutional rights and freedoms (Article 31(3) of the Polish Constitution) involves public health. Regulation of Article 68(4) of the Constitution indirectly refers to a "healthy environment". The above provision includes a State task which involves taking measures that prevent results of degradation of the environment which are negative to health. Nevertheless, one needs to remember that constitutional legal scholars and commentators express a view that the right to protection of health may be classified not only as a personal right, but also as a programme norm specifying the purposes of the state's policy.<sup>13</sup> It seems to be a universal approach to assume that if a planned undertaking lies within statutory limits of complying with environmental norms, then its impact should not bring about negative health effects.<sup>14</sup> For example, a judgement of the Voivodship Administrative Court of 23 May 2014 examined the problem of constructing a planned power line which may be the cause for exceeding, in publically available places, permissible levels of electromagnetic fields. It was concluded that in view of adopting statutory standards (as well as those resulting from implementing rules) of the impact of certain threats on the environment which outline limit values in this scope, the role of the authority is to examine whether the planned impact stays within the limits prescribed by the law or whether it exceeds them. An assessment of the above should be a dominant in the process of adjudicating whether in this specific case potential health effects were triggered.

9 Specialist literature features a number of studies which concern detailed research on the discussed subject matter, including: UK Health Protection Agency, Health Effects from Radiofrequency Electromagnetic Fields. Report of the independent Advisory Group on Non-Ionising, 2012 available at: <https://www.gov.uk/government/publications/radiofrequency-electromagnetic-fields-health-effects> (access: 14.01.2020), Media Release of the Cancer Council Australia of 17 May 2010 "World's largest mobile phone study fails to find brain cancer link" available at: [https://www.cancer.org.au/content/pdf/News/MediaReleases/2010/17MAY2010\\_World%e2%80%99s\\_largest\\_mobile\\_phone\\_study\\_fails\\_to\\_find\\_brain\\_cancer\\_link.pdf](https://www.cancer.org.au/content/pdf/News/MediaReleases/2010/17MAY2010_World%e2%80%99s_largest_mobile_phone_study_fails_to_find_brain_cancer_link.pdf) (access: 14.01.2020), M. Zmysłony, *Działanie stałych i sieciowych pól magnetycznych występujących w środowisku człowieka na układy biologiczne. Mechanizm rodnikowy*, Łódź 2000; K. Gryz, *Pola elektromagnetyczne w środowisku pracy*, Warsaw 2001.

10 S. Różycki, *Ochrona środowiska przed polami elektromagnetycznymi. Informator dla administracji samorządowej*, Generalna Dyrekcja Ochrony Środowiska 2011, p. 33.

11 Report from the Commission on the application of Council recommendation of 12 July 1999 (1999/519/EC) on the limitation of the exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) – Second Implementation report 2002–2007. COM/2008/0532 final, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52008DC0532> (access: 12.01.2020).

12 Judgment of the Constitutional Tribunal of 13 May 2009, Kp 2/09, OTK ZU 2009, no. 5a item 66, LEX no. 493281.

13 A. Surówka, *Miejsce konstytucyjnego prawa do ochrony zdrowia w systemie praw i wolności człowieka i obywatela*, "Przegląd Prawa Konstytucyjnego" 2012, no. 3, pp. 123, 126.

14 Judgment of the VAC in Warsaw of 23 May 2014, file no. IV SA/Wa 249/14, LEX no. 1564499.

Many practical problems are brought by the issue of locating transmission facilities<sup>15</sup> for instance on the Natura 2000 areas. As a rule, if an operator which uses transmission facilities does not negatively affect the protected areas, then the legislator does not require any particular behaviours on the side of such an operator.<sup>16</sup> If transmission facilities are located on the Natura 2000 areas the content of the operator's obligation is determined by the environmental protection act.<sup>17</sup> With today's progress of civilization, intensive development of radiocommunication systems and an increasing number of radiation-generating devices, it is not possible to eliminate electromagnetic radiation from the environment. In consequence, it is crucial to weigh the interests of the entities under the law – on the one hand taking into account the need of technological investments, on the other noting the need of their impact of their operation on the environment.<sup>18</sup> Therefore, it is necessary to examine levels and monitor radiation emission norms so that they do not exceed permissible values.

The issue of installing cell towers near residential areas in particular triggers a lot of controversy. Pursuant to Article 122a(1) EL, the operator of a radiocommunication installation or the user of a device emitting electromagnetic fields is obliged to measure the levels of these fields always directly after beginning to use the installation or device and each time the conditions of operation of this installation or device change as far as these changes may affect the level of emissions of fields from this installation or device. On 25 October 2019, by the act of 30 August 2019 on amending the act on supporting telecommunications services and networks and certain other acts,<sup>19</sup> hereinafter: the act of 30 August 2019, an amendment to the wording of Article 122a(2) EL was introduced. In the current status of the law, an operator of an installation or a user of a device emitting an electromagnetic field provides the voivodship inspector of environmental protection and the voivodship state health inspector with results of measurements of levels of electromagnetic fields in the environment in an electronic form within 30 days of making the measurements.

## Monitoring intensity of electromagnetic fields

The system of monitoring radiation is supposed to provide information about electromagnetic radiation in order for relevant public administration authorities to take protective and preventive measures.<sup>20</sup> The only method of gaining knowledge in this scope involves control measurements of intensity of electromagnetic fields carried out by the bodies of the

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15 One can assume pursuant to Article 49(1) of the act of 23 April 1964 The Civil Code (Dz. U. (Journal of Laws) of 2019 item 1145 as amended) that transmission facilities involve equipment for supplying or discharging liquids, steam, gas, electricity and similar other facilities.

16 B. Rakoczy, *Dopuszczalność usytuowania urządzeń przesyłowych na obszarach Natura 2000 ze szczególnym uwzględnieniem problematyki służebności przesyłu*, in: *Problemy wdrażania systemu Natura 2000...*, p. 652.

17 *Ibidem*, p. 653.

18 D. Trzcińska, *Prawo planowania i zagospodarowania przestrzennego z perspektywy środowiska i jego ochrony*, Warsaw 2018, p. 397.

19 Act of 30 August 2019 on amending the act on supporting telecommunications services and networks and certain other acts (Dz. U. (Journal of Laws) of 2019 item 1815).

20 S. Rabiej, *Wielkoskalowe skażenia promieniotwórcze środowiska. Monitoring. Ochrona. Modele i Odniesienia*, Warsaw 2012, p. 59.

Inspection of Environmental Protection and the State Health Inspection or obtained from telecommunications companies and carried out by accredited research laboratories.

Assessment of the levels of electromagnetic fields and observation of changes is done under the State Environmental Monitoring. In accordance with the Act of 20 July 2018 on amending the act on the Inspection of Environmental Protection and certain other acts,<sup>21</sup> as of 1 January 2019 the Chief Inspector of Environmental Protection took over tasks pertaining to the implementation of the state environmental monitoring and laboratory activity, which before lay with the Voivodship Inspector of Environmental Protection. In view of the above, financing tasks of the State Environmental Monitoring starting in 2019, including research planned to be carried out under the Voivodship Monitoring of the Environment of the West Pomeranian Voivodship in 2019, lies with the Chief Inspectorate of Environmental Protection. Thus these measurements are carried out by the Central Research Laboratory, Szczecin Branch, at the Chief Inspectorate of Environmental Protection. According to the State Environmental Monitoring Programme of the West Pomeranian Voivodship for 2016–2020, the Chief Inspector of Environmental Protection analyses in detail information about installations emitting electromagnetic radiation. The data collected in this regard is gradually gathered in electromagnetic fields' databases, including in the JELMAG database, and is used to assess the levels of electromagnetic fields. On the basis of this data a register of excessive values of the impact of electromagnetic fields is also kept.

Information on monitoring electromagnetic fields is made available, among others, to the Governor's Office, the Maritime Office, the Border Guard, the Regional Inspectorate of Sea Fishing and at the request of natural persons and is published (this applies in particular to annual assessments of the state of the environment) on the IEP's website: [www.gios.gov.pl](http://www.gios.gov.pl) (up until 31.12.2018 at: [www.wios.szczecin.pl](http://www.wios.szczecin.pl)). Making the information about the environment and the state of the environment available is an expression of active implementation of the obligation to inform.<sup>22</sup> Assuming that as a rule practically any installation affects the environment, the right to access to the environment, to information about the state and protection of the environment, may constitute a tool of social review of the activity of public administration authorities taken up in the area of environmental protection.<sup>23</sup> Therefore, all available information on the monitoring of intensity of electromagnetic fields is publically announced, including the location of measurement points (address, coordinates), scope of measurements, measuring devices, measurement methods, results and measurement uncertainty, information about terrain on which exceeding permissible levels of electromagnetic fields in the environment were observed, with details of excessive values concerning terrain allocated for residential buildings and publically available places.

In order to ensure full information about the values of electromagnetic fields, the Chief Inspector of Environmental Protection uses i.a. available information submitted by installations' operators and users of field-emitting facilities. The research carried out by the Chief Inspectorate of Environmental Protection (since 2018 – Voivodship Inspectorates of Environ-

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21 Dz. U. (Journal of Laws) of 2018 item 1479.

22 M. Czuba-Wąsowska, *Dostęp do informacji o stanie i ochronie środowiska – wybrane zagadnienia proceduralne*, in: *Energetyka i ochrona środowiska w procesie inwestycyjnym...*, p. 176.

23 *Ibidem*, p. 185.

mental Protection) under the State Environmental Monitoring, includes the range of electromagnetic radiation from 3 MHz to 3 GHz. A field with such frequencies is mainly generated by radio and TV stations and cell towers. They are electromagnetic radiation sources the number of which is dynamically growing. At the moment on the territory of the West Pomeranian Voivodship the number of radio permits issued by the Office of Electronic Communication has exceeded 10 thousand.<sup>24</sup>

Measurements of the intensity of electromagnetic fields in the environment were carried out according to the Regulation of the Minister of the Environment of 12 November 2007 on the scope and manner of conducting periodic measurements of levels of electromagnetic fields in the environment<sup>25</sup> in a three-year cycle, which means that investigations in the same points are repeated every three years. In 2018 measurements on the territory of the West Pomeranian Voivodship were done in 45 points in publically available places:

- 15 measurements in central districts or neighbourhoods of towns with a population of over 50 thousand,
- 15 measurements in other towns,
- 15 measurements in rural areas.

These points, according to the provisions of the above regulation, are located not closer than 100 m away from the projection of the antenna of radiocommunication, radiolocation and radionavigation installations on the surface of the terrain. The aim of the said measurement was to specify the values of intensity of electromagnetic radiation in the environment and possibly to identify areas on which the permissible values of intensity are exceeded. Measurements done in 2018 in the West Pomeranian Voivodship did not reveal excessive levels of permissible electromagnetic fields in the environment. However, one needs to remember that the dynamic development of the telecommunications industry leads to the increase of artificial sources of electromagnetic fields in the environment. Thus, this fact results in a slight increase in average levels of electromagnetic fields in the environment, especially in densely populated areas.

## Checking the levels of electromagnetic fields

Pursuant to Article 2(1)(1)(b) of the act on the Inspection of Environmental Protection,<sup>26</sup> hereinafter IEP, the tasks of the Inspection of Environmental Protection include inspecting the entities that use the environment in the meaning of the EL in terms of compliance with decisions establishing the requirements for using the environment and complying with the scope, frequency and manner of conducting measures in the volume of emissions and its impact of the state of the environment. With regard to electromagnetic radiation coming from cell towers the legislator did not specify emission standards but only defined accepted values in the environment which means that it is not monitoring emission from these installations that

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24 Data from the Office of Electronic Communication: <https://www.uke.gov.pl> (access: 23.10.2019).

25 Dz. U. (Journal of Laws) no. 221 item 1645.

26 Act of 20 July 1991 on the Inspection of Environmental Protection (Dz. U. (Journal of Laws) of 2019 item 1355 as amended).

is subject to this inspection (as it is not limited), but meeting the standards of the quality of the environment.

If the outcome of the inspection states irregularities, then a post-inspection ordinance is issued pursuant to Article 12(1)(1) IEP in order for them to be eliminated and to inform about action taken by the inspected entity in order to comply with the requirements of environmental protection.

Requests for conducting checks are brought by natural persons, institutions and public administration bodies. When implementing the provisions of Article 8a IEP, voivodship inspectors of environmental protection are obliged to provide regularly information, at the request of the bodies of local government units, on the state of the environment on the territory of the voivodship taking into account results of checks conducted on the territory of a commune or a poviat. This information may be used by these bodies to draw up Environmental Protection Programmes.

As a rule, the subject matter of a request for an inspection does not involve the way the electromagnetic field is emitted, but the applicant's concern about exceeding the limit values or about the impact of the emissions level on human health where these issues go beyond the scope of the subject-matter jurisdiction of the Inspection of Environmental Protection. The assessment of the impact of electromagnetic fields lies with the State Health Inspection, which implements public health tasks, in particular those associated with the protection of human health against detrimental impact of environmental harmful effects.<sup>27</sup> Whereas the inspection of the state of the environment involves checking whether levels of electromagnetic fields in publically available places do not exceed limit values. In 2018 the Voivodship Inspectorate of Environmental Protection in Szczecin, hereinafter: VIEP in Szczecin conducted checks of installations emitting electromagnetic fields – (cell towers and other facilities) both in the field and based on the so-called reports of self-monitoring measurements. The measured values were significantly above the limits (7 V/m). The inspection took into account results of provided measurements of the level of electromagnetic fields in the environment carried out in accordance with the appropriate methodology. Inspectors of the VIEP in Szczecin checked most of all whether:

- limit values for emissions were observed,
- examinations and measurements were carried out in a place and scope specified in statutes,
- taking samples and examinations were performed by an authorised laboratory according to the reference methodology,
- results did not raise reservations.

Stating above-norm levels of electromagnetic fields during the inspection constitutes a basis for requesting – under Article 16(1) IEP – at a competent authority for environmental protection that relevant action should be taken. In accordance with Article 362(1) EL an environmental protection authority may by way of a decision impose an obligation to limit the impact on the environment and related threats and to restore the environment to the proper state if the entity using the environment causes an adverse effect on the environment. Irrespective of the above, in accordance with Article 154(1) EL, “by way of a decision, the environmental

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<sup>27</sup> Act of 14 March 1985 on the State Health Inspection (Dz. U. (Journal of Laws) of 2019 item 59).

authority may lay down the requirements of environmental protection for the operation of an installation the emissions wherefrom do not require a permit, where this is justified by the need to protect the environment”. The literal context (and in fact referring strictly to its wording) of the expression “requirements of environmental protection” may bring interpretational doubts for the bodies applying the law.

In turn, the undertakings’ failure to meet the requirements imposed by regulations on electromagnetic field emissions results in specified sanctions:

- in accordance with Article 202 of the act Telecommunications Law<sup>28</sup>, the President of the Office of Electronic Communication may impose on the undertaking an order to withhold the operation of telecommunications activity (by way of an immediately enforceable decision) if he concluded as a result of an inspection that the inspected entity violated obligations imposed on them in a way that causes a direct and grave threat to human life and health;
- pursuant to Article 364 EL where the activity conducted by the user of the environment causes a substantial deterioration of the state of the environment or poses danger to human life or health, the Voivodship Inspector for Environmental Protection shall issue a decision stopping this activity in the scope necessary to prevent the deterioration of the state of the environment;
- in the regulation of Article 338a the EL demonstrates that evading the obligation to measure electromagnetic fields in the environment referred to in Article 122a prescribes punishment by arrest or imprisonment or a fine.

However, the currently applicable regulation of the EL does not prescribe administrative monetary penalties where permissible levels of electromagnetic fields in the environment are exceeded. The EL provides for imposing administrative monetary fines for violating the conditions laid out in permits and decisions specifying the conditions for using the environment. Such permits or decisions are not issued to specify levels of electromagnetic fields. Installations producing electromagnetic fields that may have a negative effect on the environment must only be notified to the environmental authority (Article 152(1) EL). While performing inspection steps, the VIEP should then request at the competent environmental protection authority that the notification together with the report on the measurements be made available.

The 2019 report of the Supreme Audit Office, hereinafter SAO, on “action of public administration authorities in the scope of protection against electromagnetic radiation coming from cellular telecommunications devices” addressed the formal and legal difficulty based on imprecision of meaning expressed in the absence of clarity as to specific tasks and competences attributed to the bodies of the Inspection of Environmental Protection and the State Health Inspection. In view of the above it was concluded that there is a need to assign powers in terms of reviewing compliance with permissible levels of electromagnetic fields to one specialised body that has access to data on basic parameters of cell towers and spatial distribution of intensity of electromagnetic fields in the cell towers’ surroundings. “Competence dispersion” does not serve the enforcement of obligations concerning the broadly understood environmental protection, including also protection against the impact of electromagnetic fields.

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28 Act of 16 July 2004 Telecommunications Law (Dz. U. (Journal of Laws) of 2019 item 2460 as amended).



In the post-inspection address it was also recommended that the bodies of the Inspection of Environmental Protection should among others “perform control measurements by means of equipment adequate to the state of development of transmission techniques in cellular telecommunication and name the analysis method that allows an optimal choice of measurement points focused on places most threatened by above-norm levels of electromagnetic fields”.<sup>29</sup>

One of further post-inspection recommendations involved observing the legal requirement of measuring field levels in places most exposed to the impact of high intensity radiation, that is in windows and on balconies and terraces situated high. It needs to be pointed out here that measurements may be made only where it is possible to enter the premises with the consent of the property owner. Therefore, interference in the right to privacy must be necessary and proportional. Article 31(3) of the Constitution of the Republic of Poland is a regulation that allows settlement of doubts in the discussed scope. It orders that the principle of proportionality of limitations should be observed and prohibits infringement of the essence of freedoms and rights. Sentence two of the regulation of Article 31(3), according to the Constitutional Tribunal, should be understood as an “inviolable core” of each freedom and each right. This inviolability consists in the fact that even limitations compliant with all constitutional norms must not infringe a certain sphere of rights of a man and a citizen guaranteed by the Constitution.<sup>30</sup> In view of the above, in the Authors’ opinion, only a limitation of inviolability of privacy dictated by recognized highest values of intensity of electromagnetic radiation near a place of residence, which can pose a threat to health or life, would be substantiated.

## Legislative amendments

A response to SAO’s post-inspection conclusions involves a regulation of the Minister of Health on permissible values of electromagnetic field levels in the environment,<sup>31</sup> the aim of which is to specify maximum limit values of levels of electromagnetic fields in the environment at the threshold that is safe to citizens. The act of 30 August 2019 includes statutory authorisation under which this resolution shall be issued by a minister competent for matters of health in cooperation with a minister competent for matters of digitalisation. In the previously applicable state of the law this regulation rested with the minister competent for environmental matters. The amendments, as we read in the reasoning to the draft, “result mainly from the fact that issues of protection of health (that is specifying permissible levels of electromagnetic fields in the environment) involve tasks of a minister competent for matters of health and also from the fact that Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields was issued on the basis of Article 152(1) of the Treaty establishing the European Community which speaks of complementing national policies, in order to improve public health, prevent human illness and diseases, and obviate sources of danger to human health”.<sup>32</sup> The content of the resolution

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29 <https://www.nik.gov.pl/aktulanosci/kontroli-nie-ma-promienie-harcuja.html> (access: 19.11.2019).

30 Judgment of the Constitutional Tribunal of 30 October 2001, file no. K 33/00, OTK ZU, no. 7 item 217, LEX no. 49538.

31 Dz. U. (Journal of Laws) of 2019 item 2448.

32 <https://www.sejm.gov.pl> (access: 20.11.2019).

prescribes that apart from the State Environmental Monitoring introduced by the Inspection of Environmental Protection, an Information System on Installations Generating Electromagnetic Radiation (SI2PEM) which will ensure full access to information about emissions of electromagnetic radiation in the environment will be launched in 2020. Thanks to this programme it will be possible to check the level of an electromagnetic field in any place in the entire country. It will be possible to check the distribution of the magnetic field with the accuracy of a few meters.

The act of 30 August of 2019 prescribes enhanced access to modern telecommunications services. The assumptions adopted in it were included in the “2020 Strategy for Sustainable Development (with the 2030 perspective)”<sup>33</sup> and in the recommendation of the European Commission Communication: “Connectivity for a Competitive Digital Single Market – Towards a European Gigabit Society”.<sup>34</sup> Harmonizing regulations on permissible levels of electromagnetic fields is necessary for the development of fifth generation (5G) telecommunications network.<sup>35</sup> The new network is to be quicker and more reliable compared to the currently operating mobile networks.

At the stage of the Legal Commission a draft resolution of the Minister of Climate on the manner of inspecting the observance of permissible levels of electromagnetic fields in the environment is examined.

## Conclusions

Mobile technologies touch almost all spheres of our lives. The development of digital and internet infrastructure seems inevitable. At the moment pinpointing potential sources of this impact gains increasing importance especially in places at risk of radiation. For now, the issue of assessment of the impact of modern technology on human life stays problematic. The complexity of this problem requires interdisciplinary consultations with experts equipped with specialist scholarly knowledge necessary in the process of law-making. In view of the above, people’s awareness of the need for competent administration authorities to conduct due checks in terms of observing permissible levels of electromagnetic radiation is constantly growing. The authors are of the opinion that an especially important aspect that lies with the legislator involves “careful” formulation of tasks and competences for relevant environmental protection bodies in order to avoid doubts as to activity undertaken by them in terms of protection against electromagnetic fields. One cannot forget the intensified educational activity and knowledge addressing potential threats to health posed by devices generating these fields. State of law as at 2 January 2020.

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33 About the “Europe 2020” Strategy, in: E. Mazur-Wierzbička, *Ochrona środowiska a integracja europejska. Doświadczenia polskie*, Warsaw 2012, p. 174.

34 <https://www.gov.pl/web/5g> (27.11.2019).

35 *Pole elektromagnetyczne a człowiek. O fizyce, biologii, medycynie, normach i sieci 5G*, Ł. Lamża (ed.), Ministerstwo Cyfryzacji, Instytutu Łączności Państwowego Instytutu Badawczego, 2019.

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