

CURRENT TRENDS IN MEDICAL EXAMINATIONS OF TRAFFIC-RELATED WORKERS**

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The subject of this study is the legal norms that establish the list of subjects to undergo compulsory medical examination, factors to be assessed during medical examination, as well as the procedure of medical examinations. The article is dedicated to the major aspects of the legal regulation of the procedure for medical examinations of workers engaged in the transportation.

The purpose of the study is to identify trends in the legal regulation of medical examinations of workers engaged in the transportation, including those caused by the introduction of digitalization in these processes.

Methodology. The empirical study consists of several stages. At the first stage, there was a sampling of types of transportation: road, railroad, water transportation and mass rapid transit. In the framework of the second stage the legislation regulating medical examinations of workers employed in these types of transport was analyzed using systemic, formal-legal and comparative-legal methods.

The results of the study show that to date the legal regulation of the procedure of medical examinations using telemedicine technologies is being formed in some types of transportation. At the same time, the methods of medical examinations, indicators and psycho-traumatic factors have not been adjusted to the examination with digital technologies.

Conclusions. There is a need for a differentiated approach to the legal regulation of medical examination of workers engaged in the transportation, depending on the type of transport. The authors draw attention to the outdated legal regulation of certain issues. For example, the list of professions of the ship staff of marine and inland water transport, the instruction on compulsory and periodic medical examinations was approved in 1989, and was canceled over 10 years ago. In connection with the growing interest in the development of high-speed railroad transportation, we believe that the regulations governing medical examinations of workers engaged in the transportation should be revised due to the need to include special norms establishing special studies or additional procedures required for admission to work in high-speed transportation. In addition, the authors suggest that employers should be granted the right to send their employees engaged in the transportation, whose employment contract has been suspended on the basis of the military service selection under mobilization of the Armed Forces of the Russian Federation, to take special medical examinations.

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1. Introduction. The elimination of spatial boundaries between cities is associated primarily with the development of transport infrastructure and the increasing speed of vehicle traffic. All this account for strict requirements to the quality of legal regulation of this sphere, toughening the requirements for medical examinations of the traffic-related workers. The Constitutional Court of the Russian Federation has repeatedly drawn attention to the fact that activities that create increased danger for others, including those associated with the use of a source of increased danger (transportation), require the persons who carry out these activities to be careful and cautious, because these activities multiply the risk of causing harm to third parties, which leads to the introduction of rules for the owners of sources of increased danger, compared to persons whose activities are not associated with increased danger¹. Thus, any issues related to the legal regulation of the traffic are important and relevant in practical terms.

Social relations arising in the sphere of transportation are a multifaceted phenomenon regulated by various branches of law. Thus, labor law establishes requirements for medical examinations of the traffic-related workers. All workers engaged in traffic can be roughly grouped depending on the types of transportation. Thus, horizontally it is possible to distinguish different types of transport by environment (air, land, underground, water), by presence of accompanying inspection (air transport controller, as well as parts of land, underground and water transport) or its absence (for example, taxi drivers).

In addition, regulatory legal acts separately distinguish off-street transportation, which includes the subway, monorail, cable railway, cableway². This is by no means an exhaustive classification, which is supplemented by categories of positions and professions of workers involved in the traffic of this transport³.

2. Literature review. Currently, the science of labor law lacks a comprehensive study of the legal regulation of the procedure for medical examinations of workers related to the traffic of different types of transport. Some studies analyze the legal status of workers depending on the type of transport [e.g., railway transport workers 1,2,3], justify the need to conduct medical examinations of transport workers [4,5,6,7,8], or issues related to the implementation of digitalization into the above processes [9,10,11,12,13,14]. It is concluded that there is a conflict of legal norms due to a huge layer of subordinate legislation of various agencies and ministries [15, 16].

Many modern studies pay much attention to the implementation of telemedicine technologies, including the sphere of labor. It should be noted that modern studies in terms of the impact of digitalization on medical examinations of transport workers are generally positive about the consequences of replacing doctors with modern technologies in terms of saving financial resources of the employer [17,18]. At the same time, a number of studies [19] is dedicated to the identification of technical and operational factors that reduce the reliability of the driver's condition assessment. The issue of user identification, drivers'

¹ Resolution of the Constitutional Court of the Russian Federation of 10.03.2017 No. 6-P "On the case of verifying the constitutionality of Article 15, paragraph 1 of Article 1064, Article 1072 and paragraph 1 of Article 1079 of the Civil Code of the Russian Federation in connection with the complaints of citizens A.S. Arinushenko, G.S. Beresneva and others". URL: <https://legalacts.ru/doc/postanovlenie-konstitutsionnogo-suda-rf-ot-10032017-n-6-p-po/> (accessed on 05.09.2023)

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² Article 4 of the Federal Law "On off-street transportation and on amendments to certain legislative acts of the Russian Federation" of 29.12.2017 No. 442-FZ. URL: http://www.consultant.ru/document/cons_doc_LAW_286788/ (accessed on 02.09.2023)

³ Resolution of the Government of the Russian Federation of 30.07.2004 № 395 "On Approval of the Regulations on the Ministry of Transport of the Russian Federation". URL: http://www.consultant.ru/document/cons_doc_LAW_48722/ (accessed on 05.09.2023)

independent use of non-contact thermometers, the lack of methods and means to check the presence of drugs and psychotropic substances that impair the functional state, the fact that it is impossible to see the driver's psychoemotional state without personal contact with a doctor. The fact that it is impossible to check and measure the concentration level of drugs and psychotropic substances disturbing the functional state with the help of digital technologies is confirmed by the studies of both Russian [20] and foreign scientists [21].

3. Legal regulation of medical examinations of workers. In the legal regulation of the procedure for medical examinations of traffic-related workers, the general rule is part. 1, 3 of Article 220 of the Labor Code of the Russian Federation⁴. According to this rule employees engaged in work related to the traffic undergo compulsory preliminary (when entering employment) and periodic (during employment, for persons under 21 years of age - annual) medical examinations to assess the capability of these employees to perform the assigned work and to prevent occupational diseases. At the same time, certain categories of employees may also be subject to compulsory pre-shift (pre-trip), post-shift (post-trip) medical examinations, medical examinations during the working day (shift), as well as medical examinations before performing certain types of work. The purpose of medical examinations in departmental health care is dynamic monitoring of health, prevention of complications, preservation of working capacity under intensive technologies in transportation, which raises the requirements to the state of health [22, p.100; 23, p.102].

Taking into account the specifics of each type of transport, the relevant regulatory framework regulating medical examinations of employees driving vehicles has been developed and is now in place. However, even though it was updated for the overwhelming number of transport types in 2020-2021, the procedure for

pre-shift, pre-trip and post-shift, post-trip medical examinations of employees of roadway and off-street transport is still governed by the regulatory act of 2014. The list of professions of ship personnel of marine and inland water transport, the instruction on conducting compulsory and periodic medical examinations were approved in 1989⁵, and canceled in 2012. Since then there is no special normative regulation of this issue. In fact, ship personnel of marine and inland water transport undergo preliminary and periodic medical examinations, guided by the general procedure for medical examinations of workers employed under the harmful and (or) hazardous working conditions⁶.

4. The possibility of using telemedicine technologies in medical examinations. Next, it seems necessary to analyze the current trends in the procedure of medical examinations of transport workers, which have already been the subject of scientific research [24] and which have not yet received sufficient attention in the scientific literature.

On the one hand, the legal basis for the provision of medical care with the use of telemedicine technologies⁷ was enshrined in 2017.

⁵ Order of the Ministry of Health of the USSR "On improvement of organization of medical and sanitary provision of workers of marine, inland navigation fleet and fish industry" of 06.09.1989 № 511. URL: <https://docs.cntd.ru/document/902359259> (accessed on 05.10.2022)

⁶ Order of the Ministry of Health of the Russian Federation "On Approval of the Procedure for Compulsory Preliminary and Periodic Medical Examinations of Workers Provided for by Part Four of Article 213 of the Labor Code of the Russian Federation, the list of medical contraindications to work with harmful and (or) dangerous production factors, as well as the work where compulsory preliminary and periodic medical examinations are conducted". URL: http://www.consultant.ru/document/cons_doc_LAW_375353/ (accessed on 05.09.2023)

⁷ Federal Law No. 242-FZ of July 29, 2017 "On Amendments to Certain Legislative Acts of the Russian Federation Concerning the Application of Information Technologies in the Sphere of Health Protection" amended Federal Law No. 323-FZ of November 21, 2011 "On the Fundamentals of Health

⁴ Labor Code of the Russian Federation of 30.12.2001 No. 197-FZ. URL: http://www.consultant.ru/document/cons_doc_LAW_34683/ (accessed 03.09.2023)

On the other hand, at the legislative level there is no list of types of medical activities, where the use of telemedicine technologies would be prohibited or restricted, or a list of types of medical activities that allow the use of these technologies. In connection with the above, certain types of medical activities are subject to control as to the possibility of using telemedicine technologies.

Thus, pre-trip medical examinations of employees of road transport, off-street, railway and air transport are carried out in order to detect conditions and diseases that prevent the performance of labor duties, signs of alcohol, drug or other intoxication⁸. It is possible to find these conditions only by establishing the relevant changes in physiological and other indicators of vital signs of the human body. Consequently, the

Protection of Citizens in the Russian Federation" with regard to the regulation of telemedicine technologies. A separate article 36.2 "Peculiarities of medical care provided with the use of telemedicine technologies" was included in the Federal Law "On the Fundamentals of Health Protection of Citizens in the Russian Federation". Also in paragraph 22 of Article 2 of the Federal Law "On the Fundamentals of Health Protection of Citizens in the Russian Federation" the definition of "telemedicine technologies" was fixed: information technologies that ensure remote interaction of medical workers among themselves, with patients and (or) their legal representatives, identification and authentication of these persons, documentation of their actions during consultations, consultations, remote medical monitoring of the patient's health condition. In order to regulate the issues of the mechanism of application of telemedicine technologies, the Order of the Ministry of Health of the Russian Federation N 965n of November 30, 2017 approved the Procedure for the organization and provision of medical care with the use of telemedicine technologies.

⁸ Paragraph 2 of the Order of the Ministry of Health of the Russian Federation "On Approval of the procedure of pre-shift, pre-flight and post-shift, post-flight medical examinations" of 15.12.2014 № 835n.

URL:<https://www.garant.ru/products/ipo/prime/doc/70880038/> (accessed on 07.10.2022)

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use of telemedicine technologies cannot prevent from making right diagnoses, but does not allow to reveal the presence of psychotraumatic situations and factors that impair working capacity [25], that can be found during the pre-trip medical examination of railway transport workers who carry out production activities directly related to the train traffic and shunting work, which does not meet the requirements of transport safety and can only be carried out by a medical worker.

Following the possibility of conducting medical examinations of car drivers using medical devices that provide automated remote transfer of information on the health of employees⁹, it became possible to conduct pre-flight (pre-shift) medical examinations of air transport employees (aircraft crew members or air traffic controllers)¹⁰. However, in case of their disagreement with the results of the automated medical examination, the medical re-examination is carried out by a medical worker.

Pre-flight (pre-shift) and post-flight (post-shift) medical examinations using medical devices that provide automated remote transfer of information on the health state of employees and remote monitoring of their health state will soon become possible on public railway transport (before 2017 it was only an experiment)¹¹. However, unlike

⁹ Order of the Ministry of Health of Russia of 30.05.2023 № 266n "On approval of the Procedure and frequency of pre-shift, pre-trip, post-shift, post-trip medical examinations, medical examinations during the working day (shift) and the list of tests included in them". URL:<http://publication.pravo.gov.ru/document/0001202306010013?ysclid=lma9rizhyy225593955> (accessed on 08.09.2023)

¹⁰ Order of the Ministry of Transport of the Russian Federation "On Approval of the Procedure for pre-flight and post-flight medical examinations of civil aircraft crew members, as well as pre-shift and post-shift medical examinations of air traffic controllers" of 10.12.2021 № 438. URL: <https://base.garant.ru/403300518/> (accessed on 08.09.2023)

¹¹ Federal Law No. 221-FZ of 13.06.2023 "On Amendments to Article 25 of the Federal Law "On Railroad Transport in the Russian Federation".

aviation transport, where pre-flight (pre-shift) medical examinations of flight crew members and air traffic controllers using software and hardware systems are allowed, in railway transport "remote" medical examinations are not allowed for employees performing work directly related to the operation of railway rolling stock, engaged in the transportation of passengers and dangerous cargos. Such position of the legislator, on the one hand, seems more balanced and reasonable, since post-trip examinations will also become compulsory. This will undoubtedly bring more discipline to the workers who are on a trip. The list of those examined in this way excludes drivers and their assistants engaged in the transportation of passengers and dangerous cargos (explosives, poisonous gases, radioactive substances, etc.), as good health of these persons during transportation will allow to eliminate irreparable consequences for society¹². On the other hand, we believe that such legislative regulation does not adequately protect the interests of employers that are companies of railway transport and the state. This is because the employees engaged in freight traffic that go on a trip, when they are not ready for the proper performance of labor duties, can cause significant damage to shippers, carrier, as well as the environment and society, incomparable to the savings of funds spent on the organization of "face-to-face" medical examinations. Taking into account the short period of the possibility of using telemedicine technologies, including in the course of medical examinations¹³, we believe that an

effective methodology of conducting examinations, as well as the criteria for conducting them¹⁴, could not be developed by now yet.

5. Transition to speed and high-speed traffic. The course for the transition of railway transportation to speed and high-speed traffic¹⁵ has now become relevant again¹⁶. With the commissioning of new railways, it is expected that the number of train drivers and their assistants, who are subject to strict requirements in the field of occupational safety and compliance with safety measures in the operation of high-speed¹⁷ trains will increase many times over. However, while labor

https://www.consultant.ru/document/cons_doc_LAW_221184/ (accessed on 21.08.2023).

¹⁴ The results of surveys of railroad employees show that many consider this method of medical examinations as endangering the safety of railroad traffic (for more details see Voytsekhovskiy A. RZD doctors peek at everyone except for train drivers. Economy or threat to safety: analyzing the law that requires railroad workers to undergo medical examinations remotely.

<https://vgudok.com/light/vrachi-rzhd-podsmatrivayut-za-vsemi-krome-mashinistov-ekonomiya-ili-ugroza-bezopasnosti> (accessed on 21.08.2023); Maximov V. RZD train drivers will be left without wives. Remote pre-trip medical examination: a step into the future or a blow to railroad families? <https://vgudok.com/reforma/mashinisty-rzhd-ostanutsya-bez-zhyon-distancionnyy-predreysovyi-medosmotr-shag-v-budushchee> (accessed on 21.08.2023)

¹⁵ Strategy of development of railway transport in the Russian Federation till 2030, approved by the Order of the Government of the Russian Federation of June 17, 2008 № 877-r. <https://mintrans.gov.ru/documents/1/1010?ysclid=llhsshkjjq324129289> (accessed on 21.08.2023)

¹⁶ With the speed of wind: Putin gave a start to the construction of high-speed railways to different parts of the country. <https://dzen.ru/a/ZOHYIhZIGsV4i-U> (accessed on 22.08.2023)

¹⁷ High-speed passenger trains should have a route speed of not less than 91 km/h with allowable speeds in the range of 141-200 km/h. <https://www.rzd.ru/ru/9832> (accessed on 22.08.2023)

<http://publication.pravo.gov.ru/document/0001202306130026?ysclid=lll2sujb5i380188938&index=2> (accessed on 21.08.2023)

¹² Rules for Transportation of Dangerous Cargos by Railroads, approved at the 15th meeting of the Railway Transport Council (as amended and supplemented by the minutes of the Council meetings of 23.11.07, 30.05.08, 22.05.09). <https://mintrans.gov.ru/documents/7/827?ysclid=lll3px5c2z208889236> (accessed on 21.08.2023)

¹³ Federal law "On Amendments to Certain Legislative Acts of the Russian Federation Concerning the Application of Information Technologies in the Sphere of Health Protection" of 29.07.2017 No. 242-FZ.

protection issues¹⁸ have already been regulated, there are no regulations on medical examinations for employees whose job function is related to the traffic of speed and high-speed trains. As of today, the regulatory acts governing medical examinations of workers related to the traffic of vehicles do not contain special norms establishing special examinations or additional procedures required for admission to work in high-speed traffic. As of today, the regulatory acts governing medical examinations of traffic-related workers do not contain special norms establishing special examinations or additional procedures required for admission to work in high-speed traffic. We believe that with the commissioning of new sections of railways connecting major cities in different parts of our country, involving high-speed traffic at international standards (250-300 km/h and more)¹⁹, the regulations, governing the procedure for medical examinations, may be revised.

6. The growing importance of unscheduled medical examination. Another problem of the current legal regulation of medical examinations of the traffic-related workers is the legal uncertainty about the employer sending workers, who have returned after completing military service on mobilization to the special

military operation, for an unscheduled medical examination. The need for additional medical examinations for employees who have recently participated in military operations is hardly negotiable. At the same time, the current legislation does not explicitly provide for the employer's right to send these employees for an unscheduled medical examination and, consequently, to apply negative consequences based on the results of such examination. It seems that a system analysis of the norms of part 1 of Article 220 of the Labor Code of the Russian Federation and paragraph 19 of the Order of the Ministry of Health of Russia of 28.01.2021 No. 29n allows us to conclude that the employer can send employees for medical examination after their participation in military operations, since the purpose of unscheduled medical examinations is to determine the capacity of employees to perform the assigned work and prevent occupational diseases.

7. Conclusion. At present, the legal regulation of the procedure for medical examinations of the traffic-related workers can hardly be called unified and clear for the following reasons. Firstly, the procedure for medical examinations of traffic-related workers is governed by a large number of regulatory acts issued by various ministries and agencies with no priority of their application. At the same time, there are still gaps in legal regulation of this issue. For example, to date, there is no special legal regulation of the procedure for medical examination of ship personnel of marine and inland water transport. Secondly, the implementation of telemedicine technologies in the sphere of public health care is ambiguously perceived by various agencies, not all of them are in a hurry to replace real medical workers with new digital technologies, and if they do, they use the methods provided for medical examinations by medical personnel. The situation is complicated because of the development of high-speed transportation, and its legal regulation does not yet cover the need for strict health requirements for workers related to such transportation. Finally, taking into account the objective reality, where many workers participate in mobilization, it is necessary to consider the

¹⁸ Rules for Occupational Safety and Health in the Maintenance of Speed and High-Speed Railway Lines of Russian Railways, JSC (Order of Russian Railways, JSC No. 1362r of June 25, 2010). <https://docs.cntd.ru/document/902269290?ysclid=lmaa6nwlq013539554> (accessed on 08.09.2023); Instruction on Occupational Safety and Health for Locomotive Crews of Speed and High-Speed Traffic (including those without an assistant driver) (Order of Russian Railways, JCS No. 2694r of December 9, 2013). <https://docs.cntd.ru/document/420276670?ysclid=lmaa8a4219273922085> (accessed on 08.09.2023)

¹⁹ Council Directive 96/48/EC of 23 July 1996 on the interoperability of the trans-European high-speed rail system. <https://eur-lex.europa.eu/eli/dir/1996/48/oj> (accessed on 23.08.2023)

possibility of unscheduled medical examinations
of such workers at the direction of the employer.

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