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The distinctive features of the noise protection legislation at the level of 85 subjects of the Russian Federation are considered. The comparative characteristics of the time parameters "day", "night" for working days and holidays are given. It is compared with similar indicators of other countries. 46% of subjects considered 7 am as the beginning of the "day" period; 61% considered 22 pm as the beginning of the "night" period. For the first time Russia developed the following time periods separately: "day rest", "evening", "weekends and holidays". The penalty system for violation of the noise legislation is analyzed. Irkutsk region has the "smallest" fines in Russia and Novosibirsk and Belgorod regions have the "biggest" fines.

Keywords: noise, law of silence, unreasonable noise, Ruhezeiten, Hausordnung.

Introduction

The negative impact of noise on human health is well known. Numerous scientific publications of both medical and engineering fields are devoted to this topic. This article reveals the problem of noise pollution in the territory of long-term stay of a person, i.e. an apartment. Apartment buildings, where the issues of the rules of public behavior are of particular importance, are described in the article. The legal aspects of the problem are considered.

The purpose of this article is to conduct a comparative analysis of the regulations on noise exposure restrictions in apartment residential buildings of Russia. Table 1 presents the results of the noise exposure thresholds for human health based on the results of the expert working group from European Regional Bureau of the World Health Organization.

In Russia, the impact of intermittent noise is assessed by the maximum permissible levels (MPL) according to the equivalent and maximum indicators. Table 2 presents the maximum permissible levels of the audible noise for the inner part of housing and the area adjacent to the residential building.

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Table 1

Effects with sufficient evidence and thresholds for their occurrence (Night noise guidelines for Europe, 2009)

Effect	Signs	Indicator	Threshold, dB
Biological effects	Changes in the cardiovascular system	*	*
	Restless sleep, fidgeting during sleep	$L_{Amax,inside}$	32
	Changes in the duration of different sleep stages, sleep structure and sleep fragmentation	$L_{Amax,inside}$	35
Sleep quality	Waking up at night and / or very early in the morning	$L_{Amax,inside}$	42
	Elongation of the falling asleep stage, difficulty in falling asleep	*	*
	Sleep fragmentation, reduction of sleep time	*	*
	Increase in the average level of fidgets during sleep	$L_{Amax,inside}$	42
Wellness	Feeling of sleep disturbance	$L_{Amax,inside}$	42
	Use of sleeping pills and sedatives	$L_{Amax,inside}$	40
Diseases	Insomnia associated with environmental factors	$L_{Amax,inside}$	42

* This effect occurs or may occur when exposed to noise, indicators or thresholds cannot be determined.

The impact of noise pollution on humans is estimated by several indicators (Night noise guidelines for Europe, 2009):

$L_{night,outside}$ - average annual level of night noise outside buildings

L_{Amax} - maximum corrected noise level

L_{Aeq} – equivalent corrected noise level

$L_{Amax,inside}$ – maximum level of noise exposure in the bedroom

L_{den} – equivalent level of weighted average daily noise

L_{night} – equivalent level of night noise.

Table 2

Maximum permissible level of intermittent noise for accommodation area in Russia (SP 2.2.4/2.1.8.562-96, 1997; SP 276.1325800.2016, 2017; SNaR 2.1.2.2645-10, 2010)

Purpose of premises	Time of day, h	Equivalent noise level L_{Aeq}, dBA	Maximum noise level L_{Aeq}, dBA
Living rooms of apartments in buildings of category A	7.00 – 23.00	35	50
	23.00 – 7.00	25	40
Living rooms of apartments in buildings of category B and C	7.00 – 23.00	40	55
	23.00 – 7.00	30	45
Areas directly adjacent to residential buildings, holiday homes, nursing homes for the elderly and disabled	7.00 – 23.00	55	70
	23.00 – 7.00	45	60

Table 3

Country-defined maximum equivalent levels of L_{night} traffic noise in new residential areas (Night noise guidelines for Europe, 2009)

EU Member States	$L_{night,outside}$
France	62
Germany	49
Spain	45
Netherlands	40
Austria	50
Sweden	51
Finland	46
Hungary	55
Latvia	40
Estonia	45
Switzerland	50

When comparing the MPL values near the house space, the night L_{Aeq} value in Russia is 45 dBA that is one of the minimum indicators in comparison with the EU member states (**Table 3**).

The main sources of acoustic pollution in residential apartment buildings are external and internal. External sources are primarily represented by traffic noise. The evening time of the day is characterized by a gradual decrease in the intensity of traffic flow; therefore, the contribution of automobile noise turns out to be less significant. At the same time, the maximum noise pressure levels from the loudest types of transport - motorcycles - are of great importance. The noise in the building space can be caused by car alarms, which, especially at night, causes a negative reaction from the residents. The internal sources of noise, first of all, include repair work inside apartments. Loud music, holidays, and anniversaries are usually not regular and

are coordinated with neighbors. In contrast, the sound of working tools (perforator, electric drill and others) causes a sustained negative impact on the emotional state of neighbors. One of the objectives of this work is to quantify the noise pressure level of the indoor environment from the noise sources listed above.

Literature Review

The quantitative assessment of noise exposure to humans has a relatively recent history, dating back to 1956, when the USSR adopted the world's first occupational noise standards. The first UK noise abatement law was adopted in 1960 and continues to the present day.

Each country that has adopted a noise law has its own version, but at the same time they are united by: (Ivanov, 2006)

- restrictions of various types of noise sources.
- prohibition of unnecessary redundant signals (for example, audio).
- system for issuing permits and certification of noisy work.
- procedure of verification, examination, and consideration of public complaints about noise sources.
- system of fines and compensations for violation of the law.

The most economically developed countries adopted not only noise laws, but also applied aspects of assessing noise pollution. Since 2000, several EU directives have been adopted:

- 2000/14/EC noise - equipment for use outdoors (2000/14/EC, 2004)
- Directive 2002/49/EC of the European Parliament and of the Council of the (European Union Directive 2002/49/EC, 2008)
- 2001/C 297/04 of the European Parliament and of the Council of 4 April 2001 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the implementation of good clinical practice in the conduct of clinical trials on medicinal products for human use (2001/C297/04, 2001)
- 2003/10/EC European directives on safety and health at work (2003/10/EC European directives, 2006)

The World Health Organization has recommended guidelines for noise control:

- Environmental Noise Guidelines for the European Region, 2018 (Environmental Noise Guidelines for the European Region, 2007)
- Environmental Noise Directive 2014, (Night noise guidelines for Europe, 2009)

In Russia, the basic principles of environmental protection from noise pollution are mentioned in the Federal laws:

- "On environmental protection" 10.01.2002 No. 7-FL (as amended dd. 30.12.2020)
- "On the protection of atmospheric air" 04.05.1999 No. 96-FL (as amended dd. 08.12.2020)
- "On the sanitary and epidemiological well-being of the population" 30.03.1999 No. 52-FL (as amended dd. 13.07.2020).

The actual material reflecting the quantitative indicators of noise pressure level regulation in places of human residence and time intervals is concentrated in other regulatory documents: Sanitary standards (SP 2.2.4 / 2.1.8.562–96, 1997), Building codes and regulations (SNaR 23-03-2003, 2003), Codes of Regulations (SP 276.1325800.2016, 2017; SP 271.1325800.2016, 2016; SP 51.13330.2011, 2011) State standards (GOST 22283-88, 1988).

Another variable that characterizes noise standards in a residential area is the time range. Taking into account the physiological need of a person for night rest, more stringent restrictions are proposed for this period. Until 2003, there were uniform requirements in Russia, according to which

the daytime period began at 7 am and lasted until 11 pm (SP 2.2.4/2.1.8.562–96, 1997). In the EU states and other continents, differences occur not only in individual countries, but also in administrative divisions, including individual cities.

A number of researchers in the EU countries use the global comfort index to assess the negative impact of noise levels on humans (Luzzi et al, 2016, Luzzi et al, 2019). In addition to the WHO guidelines (European Union Directive 2002/49/EC, 2008), it is proposed to take into account new pathologies and discomfort conditions associated with noise: sleep disorders, cognitive disorders, cardiovascular diseases, pregnancy complications. In addition to medical indications, the list of noise sources taken into account was expanded: it was proposed to additionally take into account the so – called "movida" - the sound landscape of urban centers. This is the noise of leisure: concerts, discos, parties, etc., thereby justifying the right to rest.

Dietz T., Stern P. (Dietz T et al, 2008) propose to involve the interested party (the public) in environmental assessment and decision-making based on a five-stage procedure: information, consultation, involvement, cooperation, empowerment.

A significant and large-scale project on the problems of sound insulation in urban residential buildings was the TU0901 project (Rasmussen et al, 2014), which was attended by about 90 experts from 29 European countries. The acoustic assessment of buildings is based on their preliminary classification according to the functions performed in them: residential buildings, school buildings, office buildings and commercial buildings, hotels, hospitals and others.

Materials and Methods

When considering the problems of noise pollution in apartment buildings, the following equipment was used:

- EKOFIZIKA-110A Basic set-110A – 110A-Noise meter, spectrum analyzer factory number BA16020. Information on entering data into the Federal Information Fund for Ensuring the Uniformity of Measurements, entry number 68002222 (Results of SI. PCT metrology verifications, 2021)
- Larson-Davis acoustic calibrator CAL 200 Model.

The noise sources were: tools for indoor repair work (Makita GA4530 angle grinder (98 dB), Makita HR2470X15 rotary hammer (105 dB), CROWN ST10127-13C impact – free drill (95 dB); external noise sources-Scher – Khan M20 car alarm (100 dB at a distance of 1 m), the noise of single motorcycles on deserted night roads Honda CB500F road motorcycle when driving at a speed of 100-110 km/h (maximum sound pressure level of 105 dBA at a distance of 7.5 m.

Modeling of acoustic pollution propagation was carried out using the Ecolog-shum 2.4.6.6023 software module (developed by Integral St. Petersburg).

Results of the Study

General Characteristics of the Legal Regulation of Noise Exposure in the Residential Area of Russia

The main material for the analysis was the differences in the regulatory legal acts of the subjects of the Russian Federation, dedicated to the problems of noise in the area of human residence. The article considers 85 subjects located in different geographical conditions (from St. Petersburg to Primorsky Territory), with different economic levels of development (from Moscow to the Khanty-Mansiysk Autonomous District), territories where worship services and other religious rites and ceremonies are performed within the framework of canonical requirements. "ConsultantPlus" system helped to analyze legal documents of 85 subjects of the Russian Federation concerning measures of restrictions on excessive noise and measures of administrative influence of violators.

The comparison was made based on 13 features that appear in the regional “Laws of Silence”. 47% out of 85 subjects of the Russian Federation have special legislation to protect against excessive noise inside housing and surrounding areas. In most cases, the Law of Silence regulates the

time interval for limiting excessive noise and the conditions for its application. In addition, in order to comply with the requirements in such a law, an administrative resource is required, which will be fulfilled with the help of system of fines and restrictions. As a rule, these are the laws "On Administrative Offenses ..." or "Code of Administrative Offenses" for individual subjects. Table 4 presents the main differences that are typical for the regulation of excessive noise in the subjects of the Russian Federation.

Table 4

Time period of restrictions on excessive noise for the subjects of the Russian Federation (Gagarin et al, 2020)

Time Interval		Generalization	Notable differences
Weekdays	Day	from 6^{-00} – 22% from 7^{-00} – 46% from 8^{-00} – 28% from 9^{-00} – 4%	Primorsky Territory from 9^{-00} to 21^{-00} Republic of Mordovia from 6^{-00} to 23^{-00}
	Lunch break (rest)	from 12^{-00} – 2% from 13^{-00} – 32% none– 66%	Khabarovsk Territory from 13-00 to 15-00 on weekdays, fines are not imposed
	Evening	from 19^{-00} – 1% from 20^{-00} – 4% from 21^{-00} – 9% none – 86%	Repair and construction works are not carried out.
	Night	from 21^{-00} – 7% from 22^{-00} – 61% from 23^{-00} – 32%	
Weekends and holidays	Day	from 6^{-00} – 18% from 7^{-00} – 20% from 8^{-00} – 16% from 9^{-00} – 20% from 10^{-00} – 22% from 11^{-00} – 2% from 12^{-00} – 1%	Penza region - Friday and Saturday according to the schedule from 6-00 to 23-00 Magadan Region - silence mode from 21-00 to 11-00.
	Night	from 18^{-00} – 1% from 20^{-00} – 1% from 21^{-00} – 4% from 22^{-00} – 59% from 23^{-00} – 35%	

The repeatability of time intervals in the "Laws of Silence" showed that on working days of the week, the "day" period in most cases (46%) coincides with the all-Russian period at 7-00. Most regions of Russia (61%) consider 22-00 as the beginning of the "night" period. For the first time, in Russia, some subjects (45%) introduced restrictions on repair and construction work at lunchtime and in the evening. If the middle of the day coincides with a number of foreign countries (13-00 in 32% of Russian regions), then the evening period for Russia is mainly legally confirmed at 21-00, while in many countries this interval begins at 19-00.

For weekends and holidays, the relative majority (59%) also considers 22-00 as the night period. While the beginning of the day has a significant range from 6-00 to 12-00, but 10-00 prevails, the repeatability of which was 22%.

Further we consider the legal component of the legislation "on silence". The main documents are special law, for example, "On ensuring peace and quiet of citizens in the territory of the Samara region", "On ensuring peace and quiet of citizens on the territory of the Udmurt Republic" and similar ones. 47% of the considered subjects of the Russian Federation have such laws. Other normative legal documents include the Law "On Administrative Offenses", "Code of Administrative Offenses" and others.

The system of penalties for violating the silence regime is also noticeably different. Most of the subjects have developed a punishment system that takes into account a more severe penalty for repeated violations. The minimum 300 rubles penalty for citizens is provided in the Irkutsk region, the maximum 3500 rubles is in the Belgorod region, the average is 1000 rubles in Russia. Officials are punished more severely: 500-1000 rubles in the Irkutsk region, 25,000-50,000 rubles in St. Petersburg, the national average - 5,000-10,000 rubles. The highest amount of the fine is applied

to legal entities: 1000-2000 rubles in the Irkutsk region, 50,000-200,000 rubles in St. Petersburg , the national average - 15,000-20,000 rubles.

The regulatory acts of the subjects of the Russian Federation provide for cases when it is allowed to temporarily exceed the level of permissible noise. There are generally accepted exceptions, for example, pyrotechnic actions during the New Year celebrations, the prevention of offenses, the prevention and elimination of the consequences of accidents, natural disasters, and other emergencies, urgent work related to ensuring the personal and public safety of citizens in accordance with the legislation of the Russian Federation. The analysis of the regulatory documents of the subjects of the Russian Federation showed a discrepancy on a number of points:

- Performing divine services, other religious rites, and ceremonies within the framework of the canonical requirements of the respective denominations. It is allowed to exceed the noise level. It is found in the legislation of 43% of the considered subjects of the Russian Federation.
- When carrying out cultural and sports events in accordance with the procedure established by the current legislation. It is allowed to exceed the noise level. It is found in the legislation of 17% of the considered subjects of the Russian Federation.

Requirements for the Assessment of Noise Exposure in a Residential Area in Other Countries

The formation of legislation to limit the noise load at the present stage originates in the UK with the adoption of the national law in 1960. This initiative was supported in other countries: United States (1972), Netherlands (1979), France (1985), Spain (1993) and Denmark (1994), Egypt (1994), etc.

A number of countries have specific features, for example, Australia, USA have the condition "unreasonable noise" that is the noise that is clearly heard from another apartment or room during protected hours and does not require confirmation by instrumental methods (USA, New Jersey). In Germany, there is the concept of Ruhezeiten that is the time during which any noise is strictly prohibited. Usually it is from 10:00 pm to 7:00 am the next day, but these rules can be changed at the meeting of the house residents. The Peoria, Illinois Noise Act (sections 15-75 and 15-77) permits the seizure of vehicles that emit excessive sound caused by audio devices.

Table 5

Time period of excessive noise restrictions for different states. (European Union Directive 2002/49/EC, 2008; Night noise guidelines for Europe, 2009; Environmental Noise Guidelines for the European Region, 2018; U.S. Noise Pollution and Abatement Act of 1972, 1972; Shiro Kawashima 1995, Alice et al, 2019)

Country / State, City	Time Interval			
	Workdays		Weekends and holidays	
	"day"	"night"	"day"	"night"
Germany	$7^{-00} – 22^{-00}$	$22^{-00} – 7^{-00}$	$8^{-00} – 22^{-00}$	22^{-00} - 8^{-00}
Australia	$7^{-00} – 22^{-00}$	$22^{-00} – 7^{-00}$	$9^{-00} – 22^{-00}$	22^{-00} - 9^{-00}
Finland	$6^{-00} – 22^{-00}$	$22^{-00} – 6^{-00}$		
Great Britain	$8^{-00} – 22^{-00}$	$22^{-00} – 8^{-00}$		
Spain Madrid	$7^{-00} – 23^{-00}$	$23^{-00} – 7^{-00}$	$8^{-00} – 23^{-00}$	23^{-00} - 8^{-00}
Switzerland	$8^{-00} – 22^{-00}$	$22^{-00} – 8^{-00}$		
Italy	$6^{-00} – 22^{-00}$	$22^{-00} – 6^{-00}$		
Israel	$7^{-00} – 20^{-00}$	$20^{-00} – 7^{-00}$	$7^{-00} – 17^{-00}$	17^{-00} - 7^{-00}
China	$8^{-00} – 21^{-00}$	$21^{-00} – 8^{-00}$		
India	$8^{-00} – 22^{-00}$	$22^{-00} – 8^{-00}$		
Sweden	$7^{-00} – 22^{-00}$	$22^{-00} – 7^{-00}$		
Poland	$6^{-00} – 22^{-00}$	$22^{-00} – 6^{-00}$		
Algeria	$8^{-00} – 22^{-00}$	$22^{-00} – 8^{-00}$		
USA / Florida	$6^{-00} – 23^{-00}$	$23^{-00} – 6^{-00}$	10^{-00} - 22^{-00}	$22^{-00} – 10^{-00}$
USA / Georgia	$7^{-00} – 22^{-00}$	$22^{-00} – 7^{-00}$		

Standards of 14 countries were considered to compare the requirements for noise restrictions in the area of people's residence.

When comparing the time intervals in **Tables 4** and **5**, we conclude that there are no fundamental differences between the subjects of the Russian Federation and the countries under consideration. In Russia, we can see a large amplitude in the time range of the beginning of the daily period – from 6-00 to 9-00.

Modeling of Acoustic Wave Propagation in the Apartment Building

The instrumental equipment determines the characteristics of three types of noise sources: perforator, car alarm, and motorcycles driving at high speed at night.

Table 6

Characteristics of noise sources

Object	Noise pressure levels, dB, in octave bands with geometric mean frequencies in Hz										L_{Aeq}	L_{Amax}
	Measuring (calculation) distance R (m)	31.5	63	125	250	500	1000	2000	4000	8000		
Sources of constant noise												
Perforator	1.0	99.0	102.0	107.0	104.0	101.0	101.0	98.0	92.0	91.0	105.0	
Sources of intermittent noise												
Motorcycle	7.5	71.5	78.0	73.5	70.5	67.5	67.5	64.5	58.5	46.0	71.9	105.0
Car alarm system	1.0	84.0	87.0	92.0	89.0	86.0	86.0	83.0	77.0	76.0	90.0	100.0

The Ecolog-Shum program was used to simulate the propagation of acoustic waves to the surrounding area. This is shown in Fig. 1 and 2.

The movement of noisy cars (motorcycles) at night is episodic and does not occur regularly, so only the maximum noise level was considered in the calculations. In the course of the experiment, the road section adjacent to the residential building at a distance of 23 meters was taken into account. The upper part of Fig. 1 shows that at the level of the windows (closed), the LA_{max} decreases to 90 dB. Double-glazed windows are practically not obstacle for acoustic waves, and for a short time the noise level in the living room reaches more than 85 dB. In the lower part, the option of gradual attenuation of noise at a considerable distance is considered. More than 300 meters is necessary for the noise from high-speed riding of motorcycles to reach a level below 70 dB.

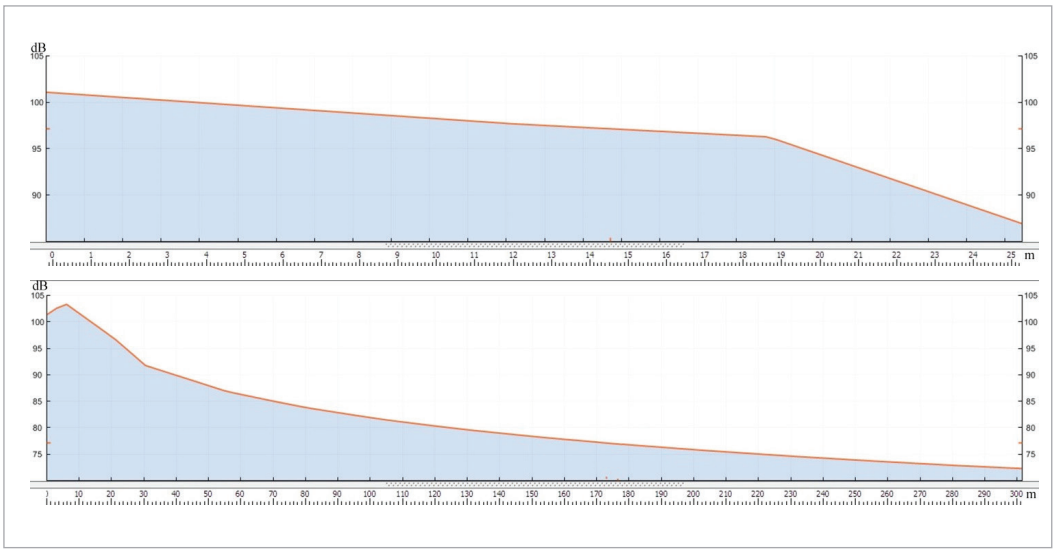


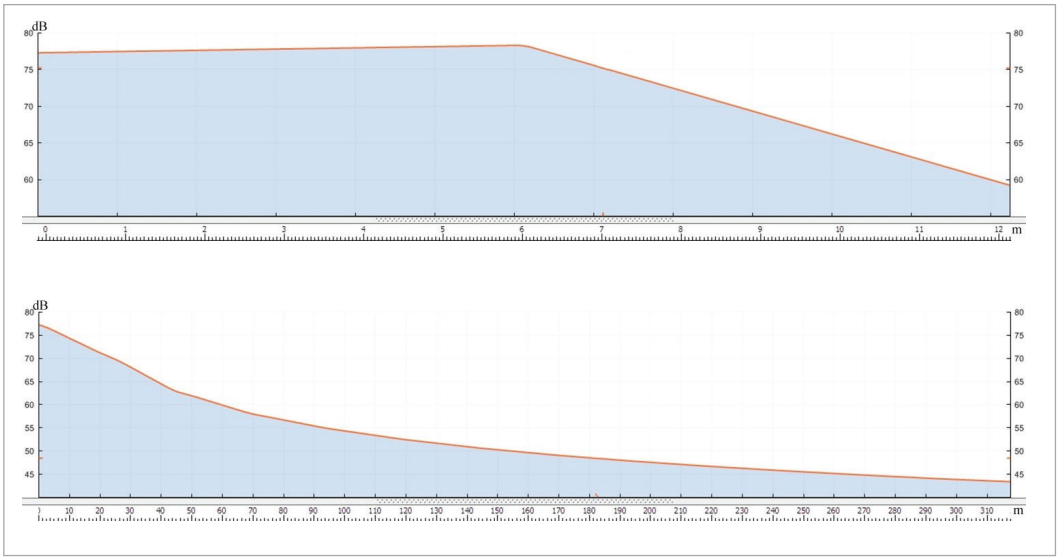
Fig. 1

Propagation of the maximum noise level from the motorcycle (s) when driving at a speed of more than 100 km / h

A more frequent source of exposure to intra-neighborhood noise is car alarms. The option of placing a car in an open guest parking lot 12 meters away from an apartment building is considered. The initial noise intensity of 100 dB, measured 1 meter away from the source, taking into account the short duration of the signal in the model and the spherical acoustic wave type, is considered as LA_{max} 78 dB. Further to the window opening, it decreases to 60 dB. In the case of an open window,

the maximum noise level should not exceed 40 dB (according to Russian standards). Fig. 2 in the lower part shows that at a distance of 60 meters from the car, the permissible maximum noise level in front of the residential building is reached. With the windows open, this distance will be more than 300 meters to achieve a safe level of 40 dB.

Fig. 2
Propagation of maximum noise level from car alarms



The propagation of noise during repair work is not typical and depends on factors such as the area and volume of the room where the work is carried out, the reverberation time, the density and geometric dimensions of the obstacle wall. These conditions affect the sound insulation index Rw, dB, which in Russia varies from 50 to 54 and depends on the category of the house. In the course of the experiment, the operation of perforator with an intensity of 105 dB was considered. If we consider compliance with all technical standards when building a house, then even the minimum level on the opposite side will be at least 50 dB of audible noise. Table 2 presents that LA_{eq} is defined as 25 - 30 dBA.

Discussions

The European Noise Control Guidelines provide thresholds for night noise levels in sleeping rooms ($LA_{max,\ inside}$) and outside ($L_{night,\ outside}$).

Table 1 shows that "restlessness in sleep" and "micro-awakening" were the most sensitive indicators of noise exposure at night - they constituted the threshold value $LA_{max,\ inside}$ 32 - 35 dB. Noise load requirements for Russia are LA_{eq} 25 dBA for high comfort houses of category A and LA_{eq} 30 dBA for apartments with lower comfort level of category B (SP 2.2.4/2.1.8.562–96, 1997). These standards do not include office space - toilet room, kitchen, and hallway.

According to the Guidelines (Night noise guidelines for Europe, 2009), noise in the area adjacent to residential buildings is responsible for the quality of sleep: "use of sleeping pills", "sleep disturbance" "insomnia" - the threshold value $L_{night,\ outside}$ -40–42 dB. Taking into account, in most cases, the impossibility of observing such a strict criterion of the noise level, the members of the working group (Night noise guidelines for Europe, 2009) proposed 2 variants of the norms: the recommended level of night noise $L_{night,\ outside}$ = 40 dB and the intermediate target indicator $L_{night,\ outside}$ = 55 dB. Most EU member states, except for France, have adopted this standard (see Table 3). Russia did not support the recommended level, but the adopted value of the night standard was significantly ahead of the target - 45 dBA.

As mentioned earlier, the time intervals for restricting excessive noise for Russia (subjects of the Russian Federation) and other countries are not fundamentally different.

After the introduction of the" Law of Silence " in 40 subjects of the Russian Federation, the rights of residents in apartment buildings to favorable conditions have improved. The most effective mechanism in this case was the system of fines. It makes possible to influence the unauthorized actions of neighbors in the house, but weakly protects against excessive external noise.

Conclusions

Problems caused by excessive noise in places where people live are no less important than difficulties caused by occupational noise. If noise was originally considered as an effect of unavoidable human disturbance, then with the adoption of the first laws of silence since the 1970s, this issue has shifted from the field of psychology to a serious environmental problem. Industrial noise is relatively easy to control and therefore can be regulated. Significant difficulties arise with household noise. There are contradictions between the" freedom " of a person in private life and forced communication with neighbors. The solution to this problem currently lies in the area of improving legislation.

In Russia there is no federal law of noise now. There are sanitary standards, but they also differ in many federal subjects. It applies to the time interval for the action of standards in the periods: "day", "evening", "night".

The physiological needs of a person suggest a duration of up to 10 hours (to ensure sleep protection for 80% of the population), but on average, people spend 7.5 hours in bed. (Night noise guidelines for Europe, 2009) For most countries and subjects of the Russian Federation, 15 - 16 hours are allotted for the night period of the day (due to the restrictions of external noise exposure).

Sanitary standards, taking into account the negative noise impact in Russia, are confirmed by medical indications and correspond to similar requirements in other countries. The main problem is their compliance. If noise from neighbors can be regulated using administrative legislation (republics, regions, territories), then the impact of traffic noise at the moment is often an unsolvable problem.

Previously, the main types of sources of noise pollution in apartment buildings and the surrounding area were considered. Reducing the severity of these problems found a solution in the legislative initiatives of some subjects of the Russian Federation, for example:

- within six months from the date of the cadastral registration of an apartment building, it is not allowed to carry out reconstruction, redevelopment, repair work (Moscow region).
- turning off the sound signal of the triggered vehicle alarm daily and around the clock (Nizhny Novgorod region).
- failure by the driver or the owner (owner) of the vehicle to repeatedly (two or more times) triggered security alarm (Samara region);
- construction works are not allowed, except for driving and vibrating piles, other work that creates noise above the permissible norm (Samara region).
- performance of work, the suspension of which is impossible due to production and technical conditions (continuously operating organizations and individual entrepreneurs) (Republic of Dagestan).

Another problem related to household noise relates to the area of proving a violation of noise legislation. In Russia, penalties can be applied if excessive noise is confirmed by an accredited laboratory, which is difficult to implement in practice. In this regard, the experience of the US state of New Jersey is interesting - when it is not required to invite a specialized laboratory. With regard to Russia, this can be replaced by modern recording devices (for example, smartphone) with the participation of neighbors. It will also be effective to confiscate a vehicle by the municipal authorities if the residents of the house are often disturbed by car alarm, as in the US state of Illinois. Noteworthy is the experience of Germany-Ruhezeiten-house rules, when the residents of the house can clarify the rules of the internal order of residence.

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