

Conference Paper

Overview of the Russian Legal Framework in the Sphere of "Green" Building

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Abstract

The article deals with a brief overview of the main laws, national standards, regulatory and technical documents that regulate legal relations in the field of "green" building in Russia. The key features of the existing legislative framework regulating environmental aspects in construction are identified and the factors limiting the introduction of "green" building in the construction sector are considered. The tendency of normative documents development in the field of environmental protection taking into account scientific and technical achievements and requirements of international rules and standards is noted. The paper provides a schematic description of the relations regulation and the establishment of mandatory requirements in the construction industry. There are also documents showing the requirements can be mandatory or voluntary. The authors consider the standards that provide a comprehensive analysis of all constructing systems from the standpoint of sustainability. The normative and technical documents describe a set of principles, categories, evaluation criteria, indicators, recommended indicators and environmental requirements for real estate. In conclusion, the lack of uniform, updated and a complete regulatory framework for technical regulation in the field of green building and the necessity to stimulate economic entities in the sphere of construction and real estate at the state level with a view to enhancing the practice of green building.

Keywords: green building, building, legislation, law, normative, standard.

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1. Introduction

The concept of "green" building arose in the 70s of the last century due to the necessity to search and develop innovative ideas and models that would ensure the harmonious development and interaction of nature and man. Green building is a set of strategies, practices, methods and skills to design, build, operate and complete healthy and resource-efficient buildings that are in harmony with the natural features and resources of the surrounding area. As a result of human activity the new natural environment, which has a high comfort indices for urban development and is at the same time, the source of energy for air-conditioning systems in buildings can be created. Basic

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principles of affordable living space with excellent quality service is a priority for the "green" construction [1, 2].

In order to analyze the potential implementation of the concept of "green" building in Russia it is important to identify the key features of the existing legal framework defining environmental aspects in building and to identify factors limiting the implementation of green building in the construction sector. Ecological construction accompanies any economic or other human activity, so environmental aspects of management such projects are keys to the territorial development in any region. The article [3] deals with analysis of standards of the "green" building and the "green" project management as the strategy of the transmission of the best practices for the environmental teams of the building projects in Arctic region.

2. Discussion

The sources of environmental law, creating environmental laws of the Russian Federation are the following legal documents: 1) Constitution; 2) Laws and other regulatory acts of the Russian Federation and the subjects of the Russian Federation in the field of nature management and environmental protection; 3) Decrees and orders of the President and the Government decrees; 4) normative acts of ministries and departments; 5) regulatory decisions of local authorities.

The basic law defining the right to a favorable environment is the Constitution of the Russian Federation [4]. All other laws and other normative legal acts in the field of environmental protection are based on the Constitution.

The Federal Law on Environmental Protection [5] proclaims the principle of basing any economic activity in the field of construction, on the basis of human right observance to a favorable environment; ensuring favorable conditions for human life; scientifically sound combination of environmental, economic and social interests of a person, society and the state in order to ensure sustainable development and a favorable environment. Thus normative documents in the field of environmental protection establish obligatory for observance at implementation of economic and other activities: requirements in the field of environmental protection to actions, services and the corresponding methods of control and restriction and conditions of the economic and other activity having negative impact on environment [6].

Along the Federal Law on Environmental Protection, ensuring environmental safety during construction is regulated by such legislative acts as: Federal Law of May 04, 1999 No. 96- Federal Law on Protection of Atmospheric Air, Federal Law of October 25,

2001 No. 136- Federal Law Land Code of the Russian Federation, Federal Law of June 03, 2006 No. 74- Federal Law on Water Code of the Russian Federation, Federal Law on Environmental Expertise.

The Federal Law on State Environmental Expertise [6] establishes the necessity for environmental expertise to assess the compliance of the planned economic activity with the requirements established by the regulatory legal acts of the Russian Federation and subjects of the Russian Federation in the field of environmental protection. Thus in the project documentation of the planned object under construction the results of the assessment of technologies, materials and construction sites in accordance with environmental standards must be presented. If the result of inspection and analysis reveals violations, the object won't be allowed implementing the construction process.

Normative documents in the field of environmental protection should be designed taking into account scientific and technical achievements and the requirements of international rules and standards. The current trend in the development of legislation and technical policy towards approximation to international standards and the international assessment system are related to observing rules. We can observe the ongoing harmonization and comparison of Russian and international requirements. Interaction and communication in the same legal and technological language with the international community are the keys to successful cooperation. Many international standards are adopted by the Russian Federation as their national standards with or without adaptation to our conditions.

For example the Order of Standart dated 20.12.2007 N 385- was put into effect by 11399-2007 Ergonomics of the Thermal Environment Principles and Application of Recognized International Standards [7]. This national standard is identical to international standard 11399:1995 (11399:1995 Ergonomics of the Thermal Environment - Principles and Application of relevant International Standards. It refers to a series of standards defining methods for measuring and evaluating hot, moderate or cold thermal environments.

The introduction of the principles of "green" building is designed to ensure sustainable development of the city and reduce the negative impact of industrial and household spheres of human activity on the environment.

The Federal Law of November 23, 2009 №261 on Energy Saving and Energy Efficiency and on Amendments to certain Legislative Acts of the Russian Federation [8], is a "limiter" that reduces the use of energy resources which involved in the process of energy production, adversely affect the quality of air and the environment as a whole.

Federal Law on Energy efficiency is supported by a number of regulations that form the legal framework for its implementation: the Government Decree from 1.09.2016-1853-R The Plan of Measures (road map) for improving Energy Efficiency of Buildings [9] the Government Decree of January 25, 2011 N^o 18 on Rules Approval establishing Energy Efficiency Requirements for Buildings, Structures, Constructions and Requirements to the Rules determining the Energy Efficiency Class of Apartment Buildings [10], the Order of the Ministry of construction dated 6 June 2016 No. 399 on Rules Approval of Determination of Energy Efficiency Class of Apartment Buildings [11], the Order of the Ministry of Construction of Russia from 17.11.2017 N 1550 on Approval of the Energy Efficiency Requirements of Buildings, Constructions, Structures [12].

We should also emphasize that the basic Federal laws in the field of environmental protection in the regulation of relations and the establishment of mandatory requirements for buildings and structures, design processes (including research), production, construction and other operations of the building life cycle refer to the legislation of the Russian Federation on technical regulation [13]. The process of creating technical regulations in Russia doesn't go along with the requests of the construction community. Nowadays the Technical Regulation on the Safety of Buildings and Structures has been adopted, 4 national standards and 76 Codes of Rules have become mandatory. Other documents have become voluntary (Figure 1).

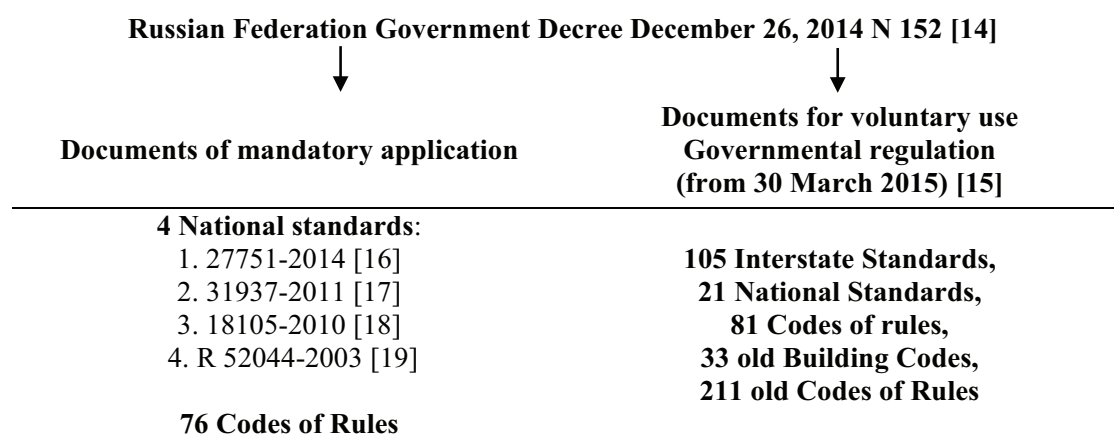


Figure 1: Scheme of relations regulation and establishment of mandatory requirements in the construction sector.

It should be noted that in Russia as in many other countries certification of products and licensing activities was introduced for the performance of services for protection consumers from low-quality or harmful products and unskilled services. In the construction industry, certification refers to the quality of building materials, related products for installation and other construction operations.

The document Fundamentals of State Policy in the Environmental Development field of the Russian Federation for the period up to 2030 considers the provision of environmentally oriented economic growth and the introduction of environmentally effective innovative technologies; prevention and reduction of the current negative impact on the environment among the main tasks. It also emphasizes that the solution of the latter task requires an increase in the volume of construction of buildings and structures certified in the system of voluntary environmental certification of real estate taking into account international experience in the application of "green" standards [20].

Environmental certification system is a set of criterion and requirements that provide a comprehensive analysis of all building systems from the standpoint of sustainability by enrolling balls and awarding the appropriate certificate to the construction object. One of the sources of legal relationships in the field of certification is state standards 54964-2012 Conformity Assessment. Environmental Requirements for Real Estate approved by Order No. 257 and put into effect on March 1, 2013 [21]. It is the first national Russian standard for environmental requirements in construction. This standard takes into account the main regulations of the following international standards: International Organization for Standardization 15392: 2008 Sustainability in the construction of buildings. General principles (International Organization for Standardization 15392:2008 Sustainability in building construction -- general principles); International Organization for Standardization 21929-1:2006 Sustainability in building construction of Stable performance, Part 1. The basis for the development of indicators for buildings (International Organization for Standardization 21929-1:2006 Sustainability in building -- Sustainability indicators -- Part 1: Framework for development of indicators for buildings); International Organization for Standardization 21930:2007 Sustainability in building construction. Environmental Declaration of building products (International Organization for Standardization 21930:2007 Sustainability in building construction -- Environmental declaration of building products); International Organization for Standardization 21931-1:2010 Sustainability in the construction of buildings. The bases of methods of an assessment of ecological characteristics of construction works is presented in Part 1. Buildings (International Organization for Standardization 21931-1:2010 Sustainability in building construction -- Framework for methods of assessment for environmental performance of construction works -- Part 1: Buildings).

The requirements of this standard are aimed at reducing the consumption of energy resources, the use of non-traditional, renewable and secondary energy resources, rational water use, reducing harmful effects on the environment in the process of

construction and operation of the building, including the adjacent territory, while ensuring a comfortable human habitat and adequate economic profitability of architectural, structural and engineering solutions. This standard defines the principles, categories, evaluation criteria, indicators, recommended indicators and minimum environmental requirements for real estate.

Nowadays various research centers, initiative groups of scientists and industrial partners are actively developing national eco-standards for buildings in the Russian Federation: the system of voluntary certification "Green standards"; standard 2.35.4-2011 Green building, Residential and Public Buildings, Rating System of the Sustainability of the Environment; Standard of "Olympstroy"; Ecological Standard for low-rise Buildings 1.1. M-2011.

3. Conclusion

Despite a number of positive characteristics of the existing regulatory framework it is obvious that the introduction of the concept of "green" building in Russia is currently constrained by the lack of a single, updated and complete regulatory and methodological framework of technical regulation in construction. There are many documents that affect the environmental aspects of construction but now they need to be isolated from the content.

Large-scale building in Russia, which would correspond to the concept of "green" building, is being slowed down by the lack of support from the state at the legislative level. There is a necessity for state stimulation of economic entities in the field of building and real estate, the creation of legal and economic mechanisms that will be the engine of "green" building in Russia.

Conflict of Interest

The authors have no conflict of interest to declare.

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