

KOSZALIN UNIVERSITY OF TECHNOLOGY

**RESEARCH AND MODELLING
IN CIVIL ENGINEERING
2019**

Edited by
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KOSZALIN 2019

MONOGRAPH NO 366
FACULTY OF CIVIL ENGINEERING,
ENVIRONMENTAL AND GEODETIC SCIENCES

ISSN 0239-7129

ISBN 978-83-7365-525-6

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KOSZALIN UNIVERSITY OF TECHNOLOGY PUBLISHING HOUSE

75-620 Koszalin, Raławicka 15-17, Poland

Koszalin 2019, 1st edition, publisher's sheet 8,23, circulation 120 copies

Printing: INTRO-DRUK, Koszalin, Poland

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4. Comparative study of Building Law in Poland and Russian Federation

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Abstract: The comparison between legal requirements (building law) compulsory in Poland and Russian Federation has been presented in the paper. Relations between national requirements in Poland and European Union are described and discussed. The similar comparison has been carried out for relations binding in Russian Federation and Eurasian Economic Unit. Final conclusions concern the similarities and differences for both legal systems applied in building industry an Poland and Russian Federation.

Keywords: Building law, comparative study, Poland, Russian Federation

4.1. Introduction

Building acts, codes or regulations (name specific for each country) can be defined as an administrative law department, which regulates issues related to all stages of the construction of facilities, such as buildings and structures. Buildings must comply with building regulations in order to obtain a building permission, usually from the local council. The main objective of these acts is to protect public health, safety and general well-being, as they concern the construction and use of buildings and structures. Construction law becomes the law of a particular jurisdiction when it is formally adopted by an appropriate government or private authority (F. Ching, S. Winkel 2015).

The early building laws appeared in ancient times. The oldest known written collection of building regulations is contained in the Hammurabi Code from about 1772 B.C. It is worth mentioning the punishment for collapsing the house and killing the owner by it- the death penalty. The protection of the health, safety and welfare of the public is the main reasons that building regulations exist (F. Ching, S. Winkel 2015).

There are many different approaches worldwide depending on a country, region or state. The most known are shown in the figure 4.1.

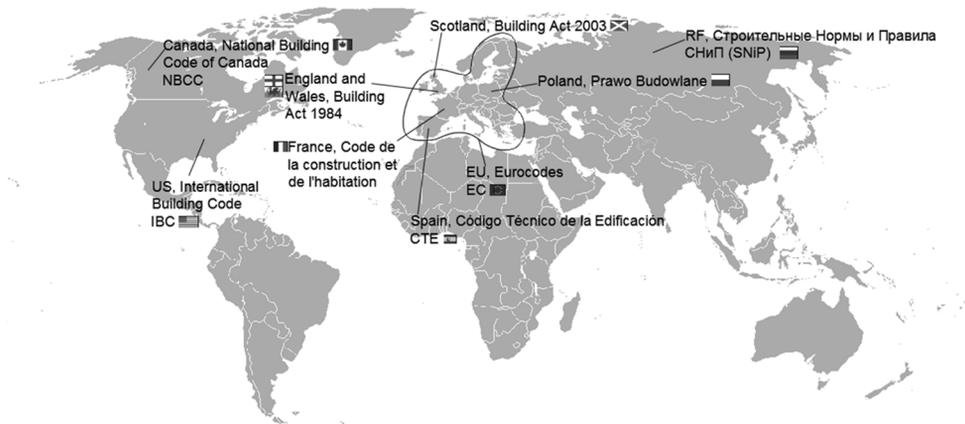


Fig. 4.1. Building Law in selected countries around the world

As we can see even within The Great Britain the law varies among nations.

There are basically two ways of implementing building law: national and local. The national one is being initiated by the government or standard organization connected to it and applied to the whole country territory and therefore called national building codes. The local one as we may suspect lies in the fact that local administration choose to start own rules valid for their jurisdiction. An example of such solution can be system of model building codes. It is maintained by an independent from the local administration standard organization and can be chosen by the authorities to use, then it becomes law. There are examples like in India where each regional unit develops its own variants, additions of National Building Code. Similar in Europe each country using Eurocodes has their own national annexes.

Every regulation no matter the country generally includes standards for structure, placement, size, usage, wall assemblies, location; rules regarding parking and traffic impact; case of fire and unusual events like earthquake, flood, hurricane etc.; energy provisions and consumption; qualification of individuals or corporations doing the work; requirements for specific building uses.

4.2. Approach in Poland

In 2004 Poland has joined the European Union. This means Poland started to use the Eurocodes, which are ten European standards for the European Union countries. Eurocodes define the rules of designing and execution of construction structures, ways of verifying the characteristics of building products of constructional significance, valid on the basis of the Harmonization Document (Polish Committee for Standardization).

Before that Poland was using its national Polish Standards. The Regulation of the Minister of Infrastructure of 12 March 2009 (Rozporządzenie Ministra Infrastruktury) changing the Regulation on the technical conditions to be met by buildings and their location granted the status of withdrawn for some parts of Polish Standards for building structures, gradually replacing them with Eurocodes as they started being approved and published in Polish language. Any changes approved by the European Committee for Standardisation are being translated by the Polish Committee for Standardisation up to date. By 2020 it is also planned to develop a completely new version of the Eurocodes, which will have to be retranslated and implemented in Poland.

The Eurocodes are divided into packages for specific issues and types of construction.

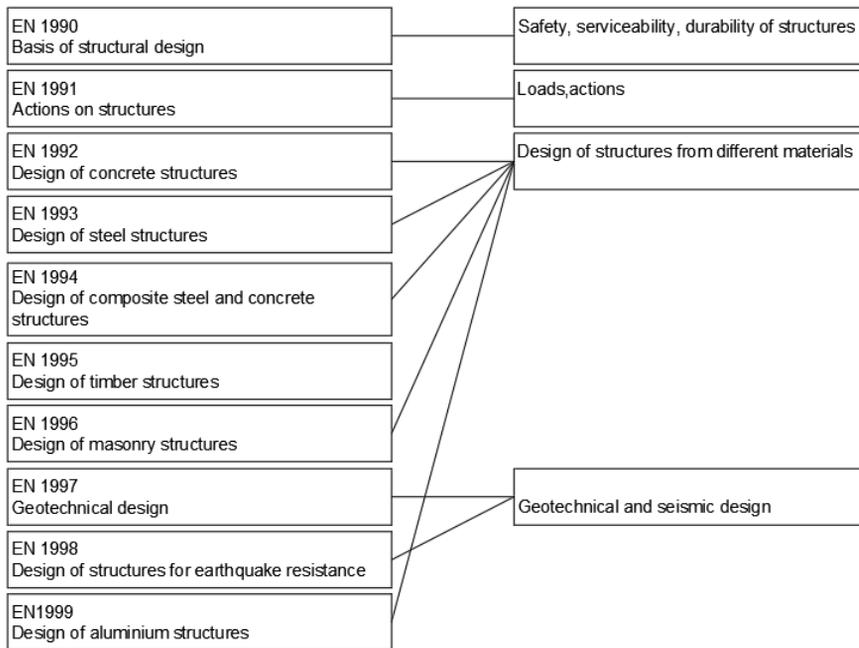


Fig. 4.2. The system of Eurocodes showing the approach in Poland

Each of the codes (except EN 1990) is divided into a number of Parts covering specific aspects of the subject. In total there are 58 EN Eurocode parts distributed in the ten Eurocodes (EN 1990 – 1999). The purpose of the Eurocodes is to provide compliance with the requirements for mechanical strength, stability and safety in case of fire within EU, a basis for construction and engineering contract specifications and a framework for creating harmonized technical specifications for building products (CE mark).

By March 2010 the Eurocodes are mandatory for the specification of European public works and are intended to become the de facto standard for the private sector. Although the Eurocodes replaced the existing national building each country is expected to issue a National Annex to the Eurocodes which will need referencing for a particular country (A. Lukianenko 2012).

It is worth adding that using Polish versions of Eurocodes is voluntary. However, Polish Standards are closely related to other technical construction regulations. According to the official position of the Polish Committee for Standardization, the use of old, withdrawn standards is possible, but this fact should be agreed between cooperating parties.

Apart from using European standards which define the designing process Poland has its own regulations. The most important document is Building Law (ustawa

Prawo Budowlane 1994), an act in the field of design, construction, supervision, maintenance and demolition of buildings and the principles of public administration authorities in this field.

The Act also regulates matters related to:

- environmental protection during activities related to demolition, building new facilities and their maintenance
- the place of investment execution and the manner of obtaining a building permission and demolition one, as well as the definition of types of construction works and constructions which do not require a building permission
- putting construction into use
- professional activities of people related to the construction industry (rights to perform independent functions in the construction industry, the so-called building licenses) and their criminal and professional responsibility
- the rights and obligations of participants in the construction process
- management when a construction disaster occurs

The act was released in 1994 but was many times changed. The last change was made in October 2018.

The act also mentions other documents- the regulation on technical conditions of the buildings and their location (Rozporządzenie Ministra Infrastruktury 2012). This Regulation establishes the technical conditions to be met by buildings and associated equipment, its location on a building plot and plot's management. The rules of the Regulation shall apply to design and construction, including restoration, extension, reconstruction and change in the use of buildings and structures aboveground and underground buildings fulfilling the functional functions of buildings and related construction equipment.

4.3. Approach in Russian Federation

Russian Federation is a part of Eurasian Economic Union and so some regulations are valid not only in the country but for the whole union. The Russian legislation, in particular, the act "About Technical Regulation" («О техническом регулировании» 2002) establishes that the main documents in the field of technical rules are technical regulations (технические регламенты). Technical regulations have a form of federal laws or acts within the Eurasian Economic Union.

The main technical regulations in the field of construction are:

- The federal law from 30th December 2009 No. 384-FZ "Technical regulations about safety of buildings and constructions" («Технический регламент о безопасности зданий и сооружений»)

-The federal law from 22th July 2008 No. 123-FZ "Technical regulations about requirements of fire safety" («Технический регламент о требованиях пожарной безопасности»)

-Technical regulations of the Eurasian Customs union of TR TS November 2011 "Safety of elevators" («Безопасность лифтов»)

From the state point of view standard technical acts (national standards and sets of rules) have to be applied in order that the construction could correspond to technical regulations.

The part of national standards and sets of rules is obligatory to use —they are approved by the resolution of the Government of the Russian Federation. For instance the list of national standards and sets of rules (or parts of such standards and sets of rules) which application provides an obligatory compatibility with requirements of the Federal Law "Technical regulations about safety of buildings and constructions". The others are applied as voluntary. At the same time the executive authorities develop and approve lists of the regulations recommended for implementing to meet the requirements of technical regulations, for example:

-the list of documents in the field of standardization as a result of which met the voluntary compatibility with requirements of "Technical regulations about safety of buildings and constructions"

- the list of documents in the field of standardization as a result of which met the voluntary compatibility with requirements of "Technical regulations about requirements of fire safety"

Federal norms are divided into three parts as we can see in figure 4.3. Moreover, republics of the Russian Federation prepare their own regulatory documents called territorial construction norms (TSN) for issues not regulated federally. The State Construction Committee approves and registers these territorial norms. The whole system of construction norms is gradually being updated (<https://ru.wikipedia.org>).

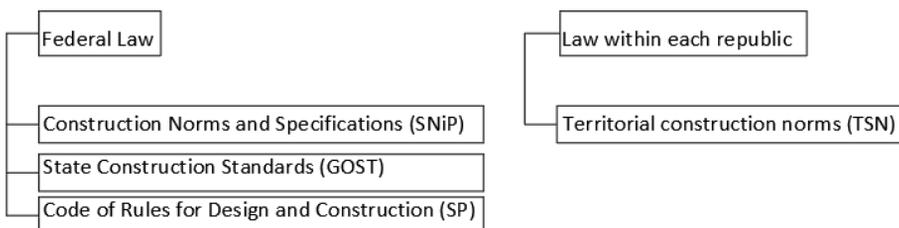


Fig. 4.3. Types of regulatory documents in Russian Federation

The most important voluntary documents, similar in meaning to Eurocodes are SNIps- Construction Standards and Rules (Строительные нормы и правила); set of the regulations of technical, economic and legal character regulating implementation of urban planning activities, and also engineering researches, architectural and construction design and construction adopted by executive authorities.

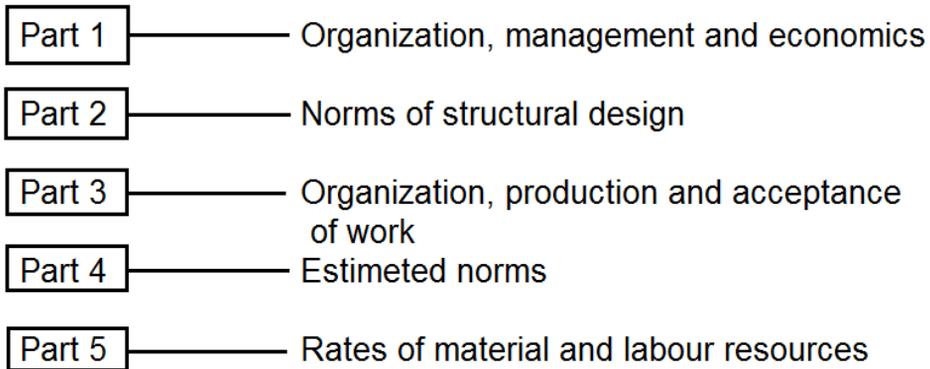


Fig. 4.4. Construction Norms and Specifications (SNIps)

The system of normative documents in construction in the USSR worked along with system of the standardization in construction which was part of the State System of Standardization and also with system of standardization within CMEA (The Council for Mutual Economic Assistance , economic organization from 1949 to 1991 under the leadership of the Soviet Union that comprised the countries of the Eastern Bloc along with a number of communist states elsewhere). Since 1995 SNIps were a special case of technical regulations. In 2010 the existing SNIps were recognized by sets as codes of procedures.

The total list of SNIps includes rules within the Eurasian Economic Union and those specific for Russian Federation (General department of standardization 1994).

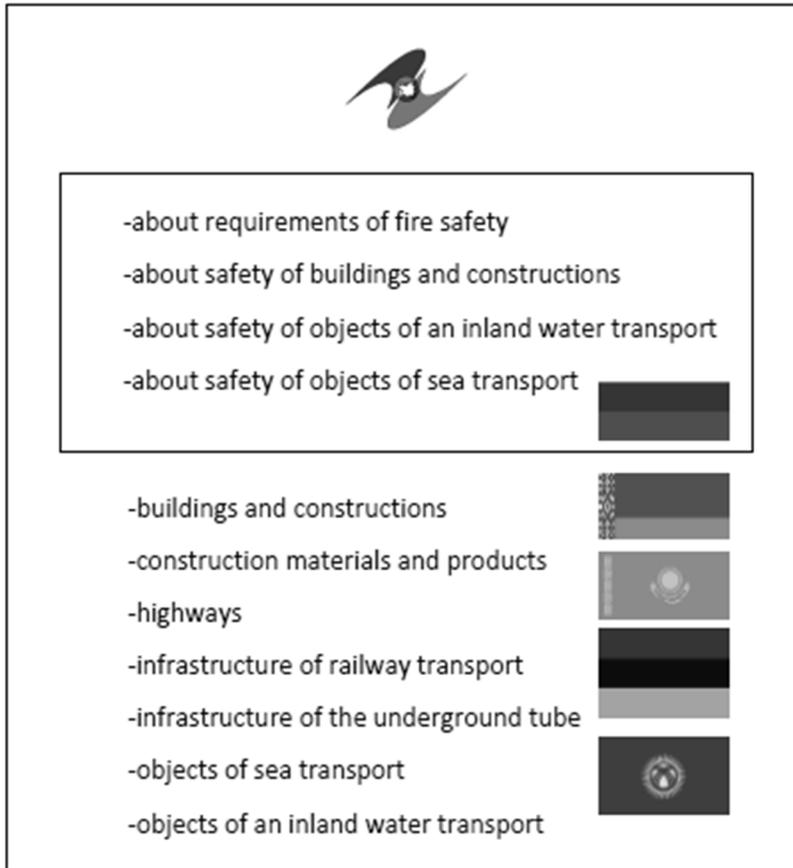


Fig. 4.5. Construction Norms and Specifications valid in Eurasian Economic Union and only in Russia

To meet obligatory requirements of technical regulations of the EAEU international standards (in case of their absence — national) are used as voluntary. In case of non-use of these standards the compliance assessment of risk analysis is carried out. In the meantime also the technical regulations of the EAEU "About safety of buildings and constructions, construction materials and products" are being developed (The federal law 2008).

Another important set of documents are GOSTs (Межгосударственный стандарт)- interstate standards. These are the regional standard accepted by the EAEU and used in this territory as voluntary. In 1992 members of the EAEU concluded the agreement in which they recognized the existing state of specification standards "GOST USRR" although removing the USSR part. GOSTs are necessary for quality control of the production made and sold in the territory of

the Russian Federation. It includes the construction branch but also many other categories like food.

Speaking about construction industry in RF you have to also mention “Town Planning Code of Russian Federation” (Градостроительный кодекс Российской Федерации 2004) - the codified regulatory legal act governing urban-planning and some relations connected to them in the territory of the Russian Federation. Although it consists of matters like territorial planning, planning zoning etc. in this code you can find architectural and construction design including survey researches, renovation which affect reliability and safety of construction, reconstruction, usage of buildings, constructions. The act was accepted in 2004.

4.4. Comparison

In this section you can find an example of approach in Poland and RF about everything before the construction stage of a single-family house and an industrial hall- all necessary documents, regulations that need to be taken into account and general procedures. The second part is a brief comparison between the codes- Eurocodes and SNiPs.

4.4.1. Detached, single-family house

4.4.1.1. General assumptions

The house consists of three floors- basement, ground floor and attic. The total area and cubature of the building are: usable area 315,12m², total area 350,20m², building area 289,00m², cubature 865,00m³. The plot is not located in nature protected area. The impact of the construction does not exceed the plot. The investment is dedicated for five people to live in. The basic structure of the building is the system of external supporting walls together with internal ones.

4.4.1.2. Approach

Table. 4.1. Single family house

Procedure in Poland (https://muratorodom.pl)	Procedure in Russian Federation (http://muravel.ru) (https://www.superdoms.ru)
I. Purchase of a plot for the construction of a house	
<p>The basic conditions, limitations or possibilities concerning the plot and possible construction are specified in two documents. The first one, the local zoning plan (Miejscowy plan zagospodarowania przestrzennego) is passed by the Commune Council and specifies whether single-family development is allowed in an area, what is the allowed area of development, lines of development, dimensions of objects etc. The second one is the decision determining the conditions of development (decyzja ustalająca warunki zabudowy) it does not give any rights to the land, does not infringe the interests of third parties, and may be issued to several interested parties. What is important, the decision is valid indefinitely.</p>	<p>If it is a single-family house, procedure will be quite easy. It is necessary to fill in the relevant documents in local administration office. The fragment from the local zoning plan can be received on hands within several days. If your ground is in the area which has no plan of zoning, you have to contact the local administration for zoning.</p>
II. Architectural and construction project	
<p>When we already have the above decision or we know the provisions of the zoning plan, we can proceed to the selection of the project. We can delegate an authorised person, i. e. an architect, to prepare an individual project for us or we can choose a catalogue design. Each project consists of:</p> <ul style="list-style-type: none"> -actual house project, called architectural and construction project, -parcel or land development project 	<p>It is the main document which is the basis for issuing the construction license. It is necessary to have prepared project or to ask the architect to design the individual project (usually such solution is a little more expensive). It should be noted that decision-making for the individual project takes a little more than time for the approval of the prepared project.</p> <p>Each project should consists of map noting property borders, sewage map,</p>

	communication system and land development plan, arrangement and outline of the planned constructions, project of land management. Lack of any of the above documents causes the project being incomplete and therefore that the construction cannot begin.
III. Application of the construction	
<p>The basic legal act regulating the whole procedure is the Building Law Act. The Act allows the construction of buildings only on the basis of a notification, without obtaining a final decision on the building permit. Having all the required documents we need to go to the district office and report there the intention to start building the house. The notification shall specify the type, extent and manner of execution of the works and the date of their commencement. The notification shall be made before the beginning of the construction works and the administration may object within 21 days. If there is no objection, we can proceed with the construction.</p>	<p>When applying you have to have the project of real estate. Thus you have to specify type of an investment, characteristics of construction, the expected access to real estate or ground, the need of water supply, estimated quantity of parking spaces, the ground free from a building. In RF it is required to have a building permission with the documents above. The license is given by executive authority of the Russian Federation or local government according to their competence. The nowadays legislation in the construction field constantly changes. Is it even recommended to ask special companies for help because procedure of paperwork demands serious legal knowledge. Obtaining technical documentation is equivalent to permission to connect the electricity, water, gas and the sewerage. You have to apply the demand for terms of delivery to the energy, water, sewerage.</p>
IV. The beginning of the construction	
<p>This stage takes place at the moment of commencement of preparatory works on the construction site such as: geodetic delineation, levelling of the area, development of the construction site, realizations of connections to the technical infrastructure network.</p>	<p>Similar in meaning to Polish approach.</p>

4.4.2. Industrial hall

4.4.2.1. General assumptions

Industrial one-storey hall intended for warehouse purposes and made of steel. The construction consists of repeatable transverse systems with a truss and columns. Its designed length is 160,60m and width 26,00m with the total cubature 45514,04m². The structure will be insulated.

4.4.2.2. Approach

Table. 4.2. Industrial hall

Procedure in Poland (https://www.mcmproject.com.pl)	Procedure in Russian Federation (http://stroy-trading.ru) (https://maistro.ru)
I. Architectural plan	
Development of the architectural concept, prepared by the architect specifying the planned size of the building, the use of production technology and the number of employees . The role of such a document is significant, as it allows to check whether the planned investment size will fit in a given area.	Analogical; concept should define the purpose of investment, exact production, parameters of the investment, energy consumption, etc.
II. The administrative documentation	
Obtaining a decision on land development and development conditions. Anyone can get a permit without having ownership of the property. You must complete the application for issuing the decision in which you have to specify planned function of the facilities, the building area, the height of the buildings, the biologically active area, method of water supply, sewage disposal and rainwater, possibilities of heating and power supply. It is advisable to attach 2 copies of the map to the so-called location purposes and a statement on ensuring the supply of the required amount of electricity, heat, water, gas, etc. The document prepared in this way must be	Documents are given by the local government, the organizations operating engineering systems, the controlling structures and so when the applicant has property rights to the land plot. The initial documentation includes: documents confirming the ownership of the land; town planning documentation confirming the possibility of placing the object planned for construction on the selected site; decisions of the city administration; conclusions and approvals from the controlling; sanitary-epidemiological service,

<p>submitted to the Urban Planning Department of the relevant local administration.</p> <p>When the investment area is covered by the so-called local zoning plan there is no need to apply for a decision, the local zoning plan contains a sufficient description of all the required parameters. All you have to do is apply to the Urban Planning Department for an extract and an outline from the local plan.</p>	<p>technical conditions of fire supervision, conclusion of natural resources management and environmental protection.</p>
<p>III. Construction project</p>	
<p>The project should include: the concept of land development, architecture, sanitary and electrical installations, both external and internal, propositions for the deployment of roads and exits. During the work on the construction project, every solution should be consulted with the owners of technical infrastructure, road management, restorer, Food Safety and Inspection Service, experts for fire protection and an investor.</p>	<p>The project should include: scheme of planning organization of the plot; architectural solutions; constructive and space-planning solutions; information about engineering equipment, engineering and technical support; organization of construction; impact on the environment; fire safety; agreements with experts, restorer etc.</p>
<p>IV. Application of the construction</p>	
<p>Having all documents above time to apply for this document. It can do only a person or company that proves the so-called the right to use the property for construction purposes. The document should be submitted to the Department of Architecture of the County Office which, by conducting the administrative proceedings, informs about the planned investment owners or managers of neighbouring real estates. The entire procedure takes about 65 days.</p>	<p>“Working documentation” is developed on the basis of technical solutions defined in the project. The document regulating the composition, form and content of materials at this stage is the National Standard GOST R21.1101-2013 “Requirements for design and working documentation”. Similar to house construction you have to have a building permission. The license is given by executive authority or local government according to their competence.</p> <p>If the main technical solutions have already been agreed between the construction participants, the construction can begin immediately after receiving a positive expert opinion and a construction permit.</p>

4.4.3. Eurocodes and SNIps

In the 70s “the construction boom in the USSR” (<http://muravel.ru>) pushed also Europe to create of similar system of standards which basis had the same principles, as in SNIps. However distinction in economic formations — market and planned ones — introduced the amendments. In Europe they didn't specify actual processing methods and decisions and gave only the unified models and lists of the normalized parameters determined at the national level. They both are based on the limit state design system, present regulations to define the principal objectives, affect the design issues with almost all the major construction materials but Eurocodes are divided into different parts by the material issue and SNIps by the structural design issues.

Unlike SNIps the system of Eurocodes doesn't include norm of design of buildings and constructions of a different functional purpose (industrial and civil, inhabited, multipurpose, hotels, etc.), and also question of town planning, engineering systems, architectural supervision, etc. (A. Lukianenko 2012).

In some of the formal soviet republics Eurocodes became or are planning to be national standards like in Ukraine, Kazakhstan. This means also in RF there is growing interest of using Eurocodes. Acceptance of eurocodes involves big changes. These are changes in regulations of technical regulation and standardization, but also to pricing in construction, budget documentation, to create new specialized software.

More than a half of the lands in Russia are karst zones. Essential differences of standards are observed in question of high constructions. It is necessary to perform installation and construction works on the fast-built technologies in such places accurately, without any deviations from design calculations. It is impossible to implement the European standards in zones where there are various slope processes: flooding, landslides, mudflows, avalanches, etc. All these differences of standards because of national, social and climatic features don't allow to carry out prefabricated constructions usage of only Eurocodes. It concerns also those regions of Russia which territorially are considered as seismically dangerous zones. But as said before Eurocodes are becoming more and more popular. One of their advantage is a significant metal saving, and the other is a reduction of the cost of design and construction installations. It is believed that the Eurocodes are developed taking into account the analytics of the latest catastrophes and accidents that occur in different countries in the world (<https://www.superdoms.ru>).

Nowadays economic and production prerequisites appeared according to which Eurocodes and SNIps should exist in parallel. For the domestic producer and the contractor of installation and construction works so he or she could regulate prices for products and services, it is necessary to harmonize Eurocodes and

SNiPs. And for this purpose the optimal decisions answering to the general rules of construction and design both in Europe, and in Russia will be necessary.

4.4. Conclusion

As described Poland and Russian Federation are parts of different Unions- EU and EAEU. This means their national rules have to comply with the union law. In a few words although Poland is part of the EU using Eurocodes isn't obligatory, but it is rather a standard connected to other national regulations. It is also possible to use old Polish codes, but only with the agreement of both sides. Eurocodes establish technical uniform norms for all member countries of the European Union and uniform approach to design with national annexes. However the most important regulation is Building Law regarding matters of design, construction, supervision, maintenance and demolition of buildings and the principles of public administration authorities.

The RF law is more complicated. There are three levels of legislation in the Russian Federation: federal, regional and local. The major laws regulating construction and that were described in the article are established at a federal level, and may be made more specific at the regional or local levels.

The systems of Eurocodes and SNiPs are similar but have also many differences. They both are based on the limit state design system, present regulations to define the principal objectives, affect the design issues with almost all the major construction materials but Eurocodes are divided into different parts by the material issue and SNiPs by the structural design issues. SNiPs and Eurocodes differ on structure and the contents in a format and the status. And at the same time the purposes and tasks which are implemented as a result of application of these documents are similar. Their basic purpose is safety of construction from various materials on two key aspects: their mechanical durability and fire resistance.

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